CMT-NE3

SERVICE MANUAL

Ver 1.0 2004.03

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model

- CMT-NE3 is composed of the following models.
  As service manuals are issued for each component model, please refer to them.

COMPONENT MODEL NAME

	CMT-NE3
COMPACT DISC DECK RECEIVER	HCD-NE3
SPEAKER SYSTEM	SS-CNE3

SPECIFICATIONS

Power requirements	
North American model:	120 V AC, 60 Hz
Mexican model:	120 V AC, 60 Hz
European model:	230 V AC, 50/60 Hz
Australian model:	230 – 240 V AC, 50/60 Hz
Korean model:	220 V AC, 60 Hz
Taiwanese model:	120 V AC, 50/60 Hz
Saudi Arabian model:	120 – 127/220 V AC, 50/60 Hz
Other models:	110 – 120 V or 220 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	45 W
Dimensions (w/h/d)	Approx. 164 × 230.5 × 263 mm incl. projecting parts and controls
Mass	Approx. 3.7 kg
Supplied accessories	Remote Commander (1) R6 (size AA) batteries (2) AM loop antenna (1) FM lead antenna (1)

Design and specifications are subject to change without notice.

ACCESSORIES

Part No.	Description	Remark
1-478-519-11	COMMANDER, STANDARD (RM-SC1)	
1-754-102-31	ANTENNA, ROOP (LW.MW)	
1-754-243-11	ANTENNA (FM)	
4-253-397-11	MANUAL, INSTRUCTION (ENGLISH)	(US, CND, AEP, UK, E, TW, AR, E51, EA, SP, AUS)
4-253-397-21	MANUAL, INSTRUCTION (FRENCH) (CND, EA)	
4-253-397-31	MANUAL, INSTRUCTION (FRENCH, SPANISH)	(AEP, E, AR, MX, E51, SP)
4-253-397-41	MANUAL, INSTRUCTION	(GERMAN, DUTCH, ITALIAN) (AEP)
4-253-397-51	MANUAL, INSTRUCTION (SWEDISH, POLISH) (AEP)	
4-253-397-61	MANUAL, INSTRUCTION	(TRADITIONAL CHINESE) (SP, TW)
4-253-397-71	MANUAL, INSTRUCTION (KOREAN) (KR)	
4-253-397-81	MANUAL, INSTRUCTION (ARABIC) (EA)	
4-253-398-11	MANUAL, INSTRUCTION (DANISH, FINNISH) (AEP)	
4-253-398-21	MANUAL, INSTRUCTION (PORTUGUESE) (AEP)	
4-253-398-31	MANUAL, INSTRUCTION (RUSSIAN) (AEP)	
4-253-398-41	MANUAL, INSTRUCTION (GREEK) (AEP)	
4-253-398-51	MANUAL, INSTRUCTION (CZECH, HUNGARIAN) (AEP)	
4-253-398-61	MANUAL, INSTRUCTION (TURKISH) (AEP)	
4-253-398-71	MANUAL, INSTRUCTION (SLOVAKIAN) (AEP)	

•Abbreviation

AR : Argentina model
AUS : Australian model
CND : Canadian model
E51 : Chilean and Peruvian models
EA : Saudi Arabia model
KR : Korean model
MX : Mexican model
SP : Singapore model
TW : Taiwan model

MICRO Hi-Fi COMPONENT SYSTEM

9-877-692-01
2004C05-1
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Sony Corporation
Home Audio Company
Published by Sony Engineering Corporation

SONY®

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2004.03	New

SS-CNE3

SERVICE MANUAL

Ver. 1.1 2005.02

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model

- SS-CNE3 is the speaker system in CMT-NE3.

SPECIFICATIONS

Speaker system	Full Range Speaker System
Speaker units	
Woofer:	10 cm dia., cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 146 × 230.5 × 135 mm
Mass	Approx. 1.5 kg net per speaker

Design and specifications are subject to change without notice.

PARTS LIST

Part No.	Description	Remark
A-4714-169-A	UNIT ASSY, MAIN (US, CND, AR, EA, KR, MX, TW, AUS)	
A-4714-171-A	UNIT ASSY, MAIN (AEP, UK, E, SP, E51)	

•Abbreviation

AR	:	Argentina model	KR	:	Korean model
AUS	:	Australian model	MX	:	Mexican model
CND	:	Canadian model	SP	:	Singapore model
E51	:	Chilean and Peruvian models	TW	:	Taiwan model
EA	:	Saudi Arabia model			

SPEAKER SYSTEM

9-877-694-02
2005B05-1
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REVISION HISTORY

Clicking the version allows you to jump to the revised page.
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Ver.	Date	Description of Revision
1.0	2004.03	New
1.1	2005.02	Correction of Part No. for MAIN UNIT ASSY (AEP, UK, E, Singapore, Chilean and Peruvian) (SPM-05022)

HCD-NE3

SERVICE MANUAL

Ver. 1.1 2005.07

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model

• HCD-NE3 is the amplifier, CD player, tape deck and tuner section in CMT-NE3.

CD Section	Model Name Using Similar Mechanism	NEW
	Base Unit Name	BU-K7BD80B
	Optical Pick-up Name	KSM-213EDP/C2NP
TAPE Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	CMAL5Z220A

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION: (US model)

With 6 ohm loads, both channels driven, from 120-10,000 Hz; rated 13 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

Main unit

Amplifier section

North American model:
Continuous RMS power output (reference): 15 + 15 W (6 ohms at 1 kHz, 10% THD)
European model:
DIN power output (rated): 11 + 11 W (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference): 15 + 15W (6 ohms at 1 kHz, 10% THD)
Music power output (reference): 25 + 25 W
Other models:
The following measured at AC 230 V or AC 120 V, 50/60 Hz
DIN power output (rated): 11 + 11 W (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference): 15 + 15 W (6 ohms at 1 kHz, 10% THD)

Inputs
MD (phono jacks): Sensitivity 450 mV, impedance 47 kilohms

Outputs
PHONES: Accepts headphones with an impedance of 8 ohms or more
SPEAKER: Accepts impedance of 6 to 16 ohms.

CD player section

Laser: Semiconductor laser (λ=780 nm) Emission duration: continuous
Frequency response: 20 Hz – 20 kHz
Wavelength: 780 – 790 nm

Tape deck section

Recording system: 4-track 2-channel, stereo
Frequency response: 50 – 13,000 Hz (±3 dB), using Sony TYPE I cassettes

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range: 87.5 – 108.0 MHz
Antenna: FM lead antenna
Antenna terminals: 75 ohms unbalanced
Intermediate frequency: 10.7 MHz

AM tuner section

US, Canadian, Mexican and Argentina models: 530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,710 kHz (with the tuning interval set at 9 kHz)
AEP and UK models: 531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Other models: 530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Antenna: AM loop antenna, external antenna terminal
Intermediate frequency: 450 kHz

General

Power requirements
US, Canadian and Mexican models: 120 V AC, 60 Hz
AEP and UK models: 230 V AC, 50/60 Hz
Australian model: 230 – 240 V AC, 50/60 Hz
Argentina and Korean models: 220 V AC, 60 Hz
Taiwanese model: 120 V AC, 50/60 Hz
Saudi Arabian model: 120 – 127/220 V AC, 50/60 Hz
Other models: 110 – 120 V or 220 – 240 V AC, 50/60 Hz Adjustable with voltage selector

Power consumption: 45 W

Dimensions (w/h/d): Approx. 164 × 230.5 × 263 mm incl. projecting parts and controls

Mass: Approx. 3.7 kg

Supplied accessories: Remote Commander (1) R6 (size AA) batteries (2) AM loop antenna (1) FM lead antenna (1)

Design and specifications are subject to change without notice.

COMPACT DISC DECK RECEIVER

9-877-693-02
2005G05-1
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Notes on chip component replacement

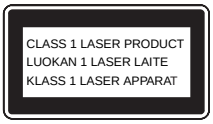
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

The following caution label is located inside the unit.



This appliance is classified as a CLASS 1 LASER product.

This label is located on the rear exterior.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 ˚C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 ˚C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.).
Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

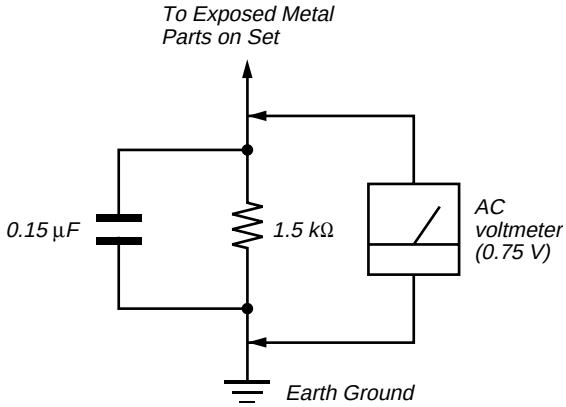


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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SECTION 1
SERVICING NOTES

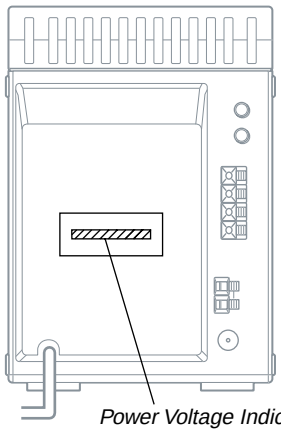
NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

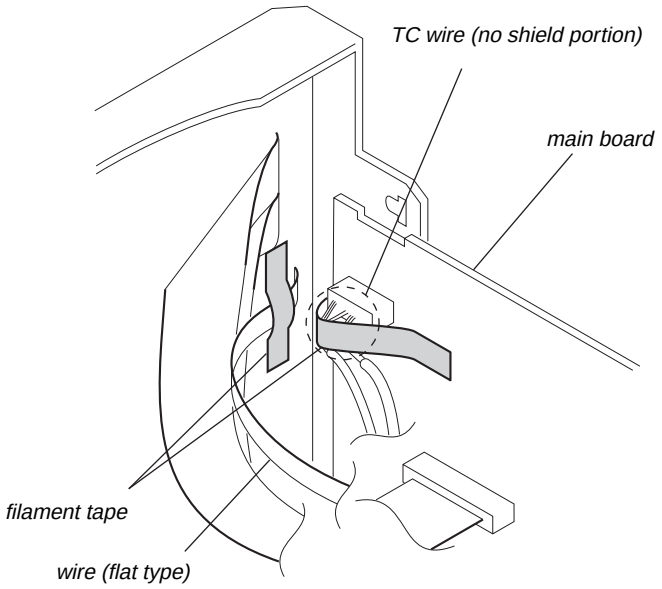
• MODEL IDENTIFICATION
– Rear Cabinet –



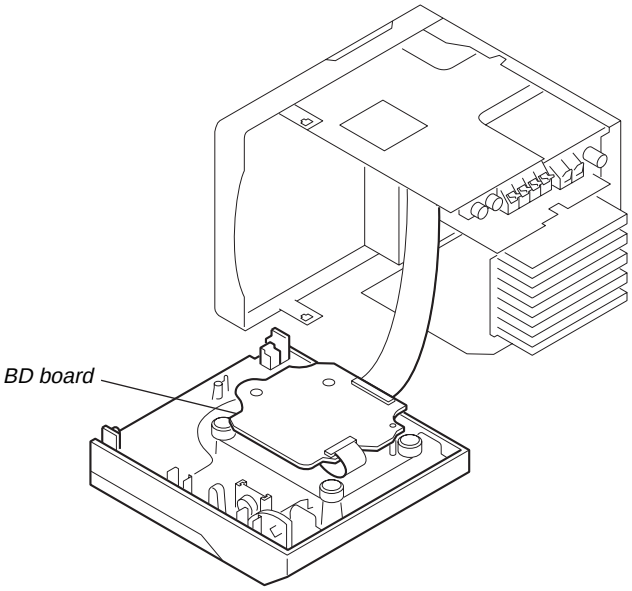
MODEL	Power Voltage Incdication
US, Canadian, Mexican and models	AC: 120 V 60 Hz 45 W
AEP and UK models	AC: 230 V ∿ 50/60 Hz 45 W
Australian model	AC: 230 – 240 ∿ 50/60 Hz 45 W
Argentina and Korean models	AC: 220 V ∿ 60 Hz 45 W
Taiwan model	AC: 120 V 50/60 Hz 45 W
Saudi Arabia model	AC: 120 – 127/220 V 50/60 Hz 45 W
Other models	AC: 110 – 120/220 – 240 V 50/60 Hz 45 W

NOTE ON LEADING THE WIRE (FLAT TYPE)

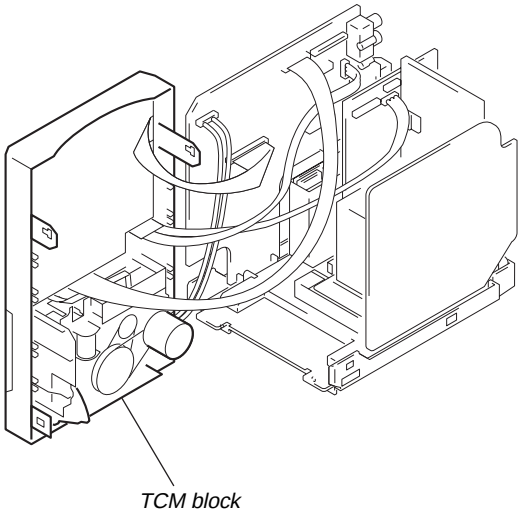
• In order to separate wire (flat type) from no shield portion of TC wire, stick filament tapes, as shown in a figure.



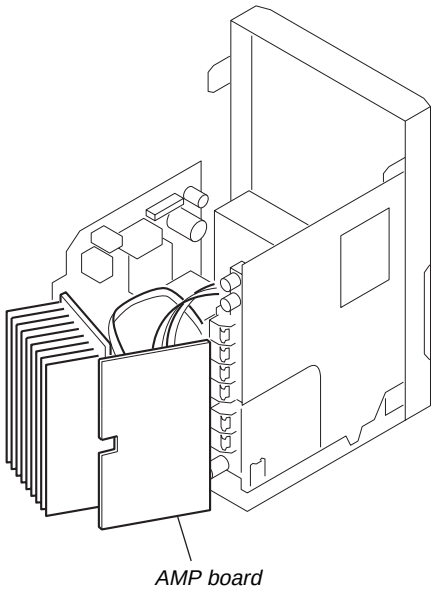
SERVICE POSITION
– BD board –



– TCM block –



– AMP board –



SECTION 2
GENERAL

This section is extracted from instruction manual.

• LOCATION OF CONTROLS

Main unit

ALPHABETICAL ORDER

A – O

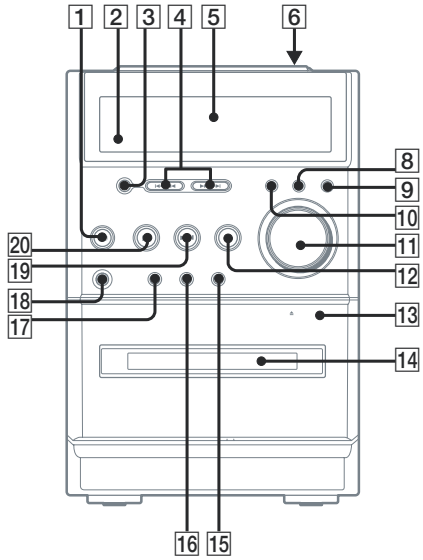
BASS/TREBLE 8
Cassette compartment 14
CD SYNCHRO 15
DISPLAY 10
Displaywindow 5
DSGX 9

P – Z

PHONES jack 18
PLAY MODE 17
Remote sensor 2
TUNER/BAND 12
TUNING +/– 4
TUNING MODE 17
VOLUME 11

BUTTON DESCRIPTIONS

I/⏻ (power) 1
⏮◀◀/▶▶⏭ (skip back/skip forward,rewind/fast forward) 4
■ (stop) 3
● RECPAUSE/START 16
CD/▶II(play/pause) 19
TAPE/▶(play) 20
⏏ PUSHOPEN/CLOSE (CD open/close) 6
⏏ PUSHOPEN (tape open/close) 13



Remote control

ALPHABETICAL ORDER

A – O

CD 16
CLEAR 13
CLOCK/TIMER SELECT 2
CLOCK/TIMERS ET 3
DISPLAY 19
ENTER 9
EQ 12
FM MODE 4
FUNCTION 6

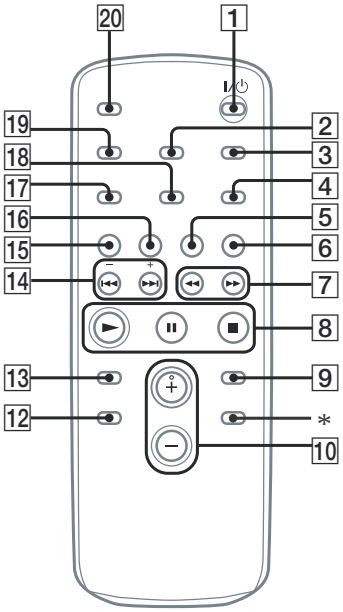
P – Z

PLAY MODE 18
REPEAT 4
SLEEP 20
TAPE 15
TUNER/BAND 5
TUNER MEMORY 17
TUNING MODE 18
VOLUME +/– 10

BUTTON DESCRIPTIONS

I/⏻ (power) 1
◀◀/▶▶ (rewind/fast forward) 7
I◀◀ /▶▶I (go back/go forward) 14
■ (stop) 8
❚❚ (pause) 8
► (play) 8
+/– (tuning) 14

CMT-NE3



* Button does not function with this model.

Setting the clock

Use buttons on the remote for the operation.

1 Press I/⏻ to turn on the system.

2 Press CLOCK/TIMER SET.

3 Press I◀◀ /▶▶I repeatedly to set the hour.

4 Press ENTER.

5 Press I◀◀ /▶▶I repeatedly to set the minute.

6 Press ENTER.

The clock starts working.

To adjust the clock

1 Press CLOCK/TIMER SET.

2 Press I◀◀ /▶▶I until “CLOCK” appears, then press ENTER.

3 Do the same procedures as step 3 to 6 above.

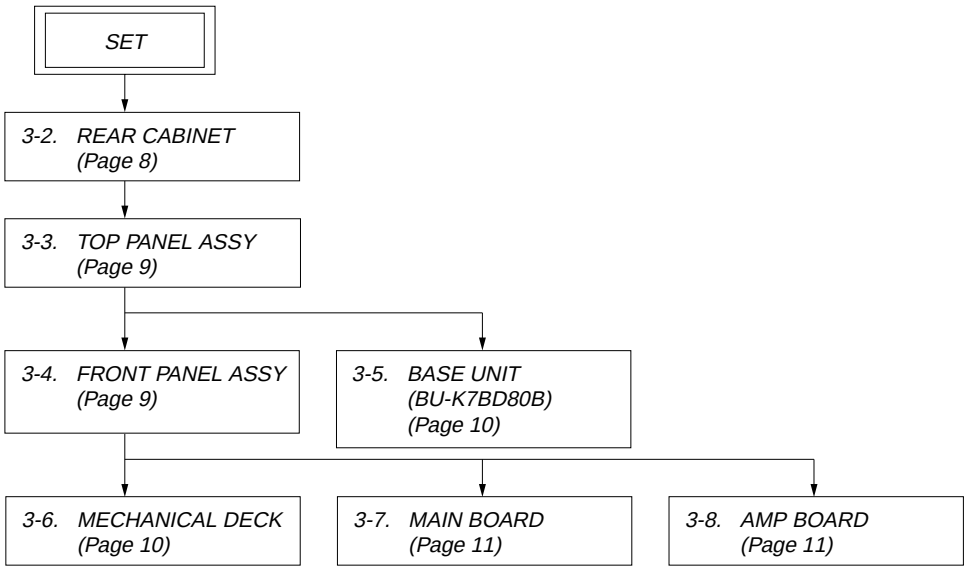
Note

The clock is not displayed in Power Saving Mode.

SECTION 3
DISASSEMBLY

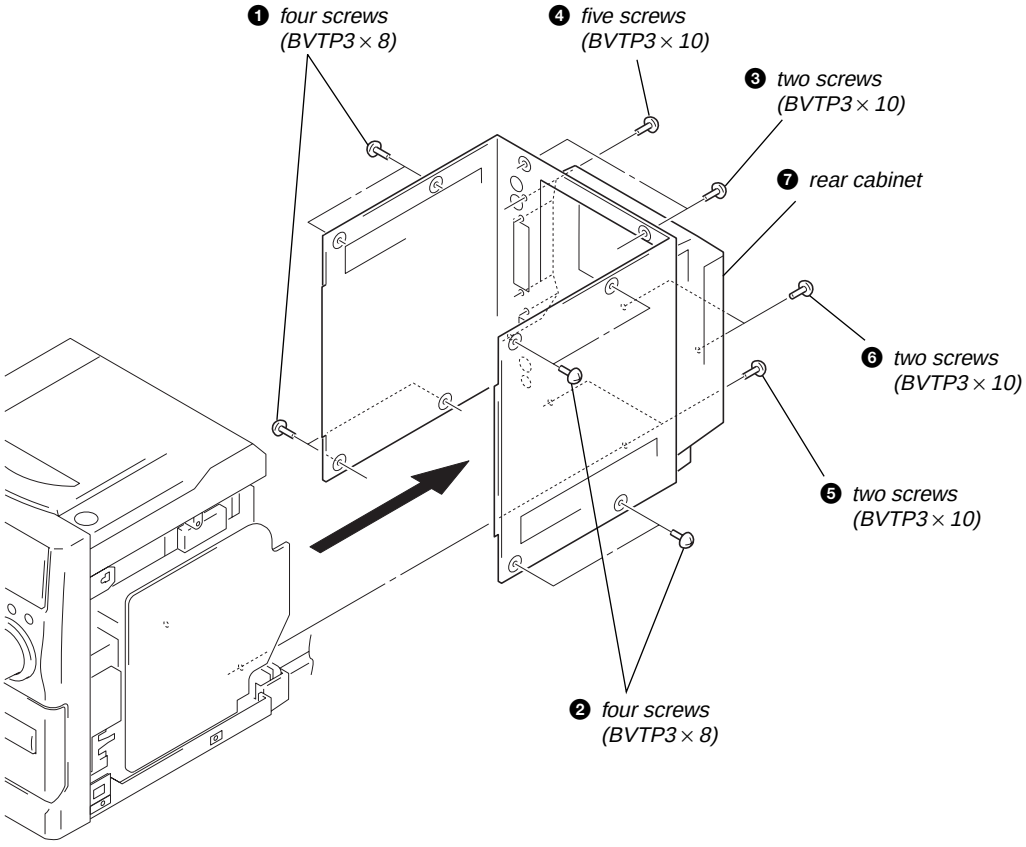
• This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

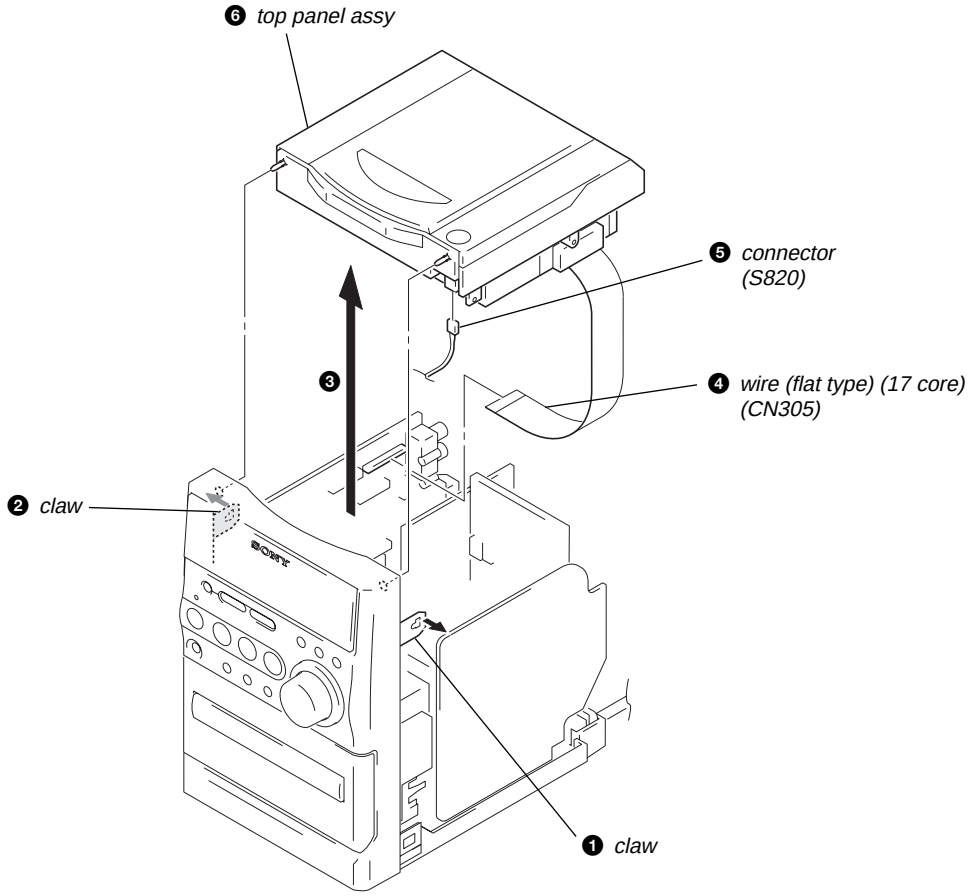

SET
3-2. REAR CABINET (Page 8)
3-3. TOP PANEL ASSY (Page 9)
3-4. FRONT PANEL ASSY (Page 9)
3-5. BASE UNIT (BU-K7BD80B) (Page 10)
3-6. MECHANICAL DECK (Page 10)
3-7. MAIN BOARD (Page 11)
3-8. AMP BOARD (Page 11)

Note: Follow the disassembly procedure in the numerical order given.

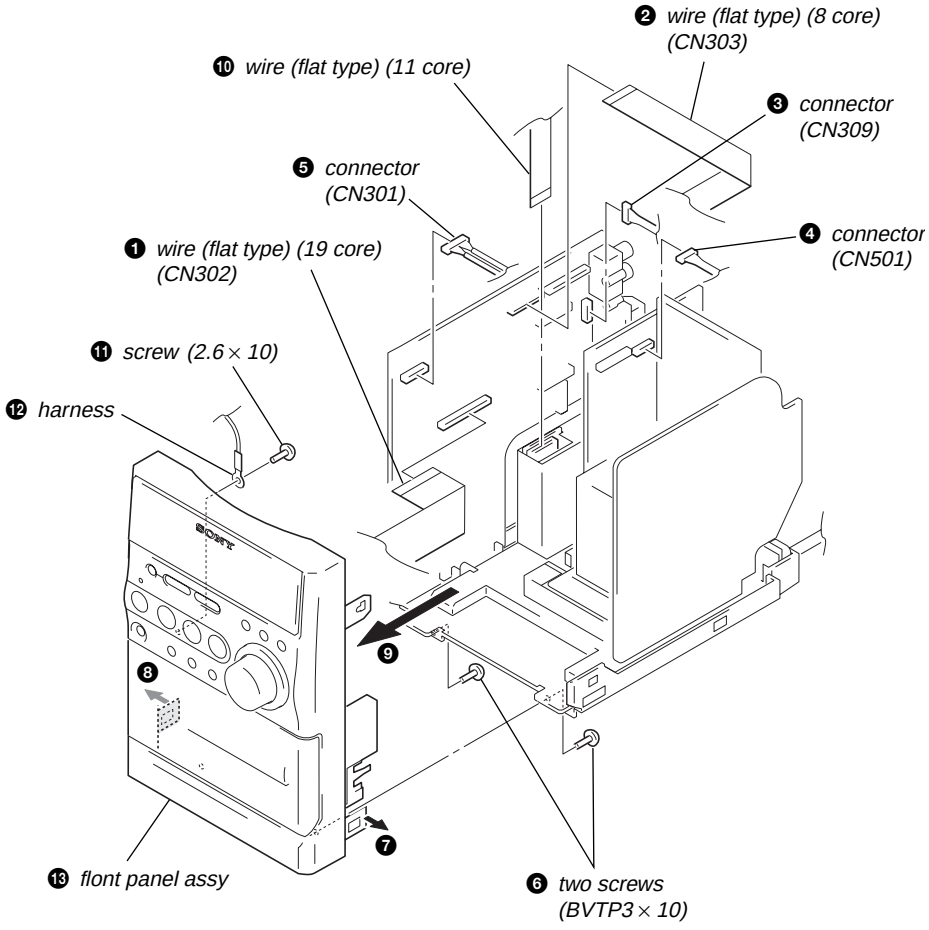
3-2. REAR CABINET


❶ four screws (BVTP3 × 8)
❹ five screws (BVTP3 × 10)
❸ two screws (BVTP3 × 10)
❼ rear cabinet
❻ two screws (BVTP3 × 10)
❺ two screws (BVTP3 × 10)
❷ four screws (BVTP3 × 8)

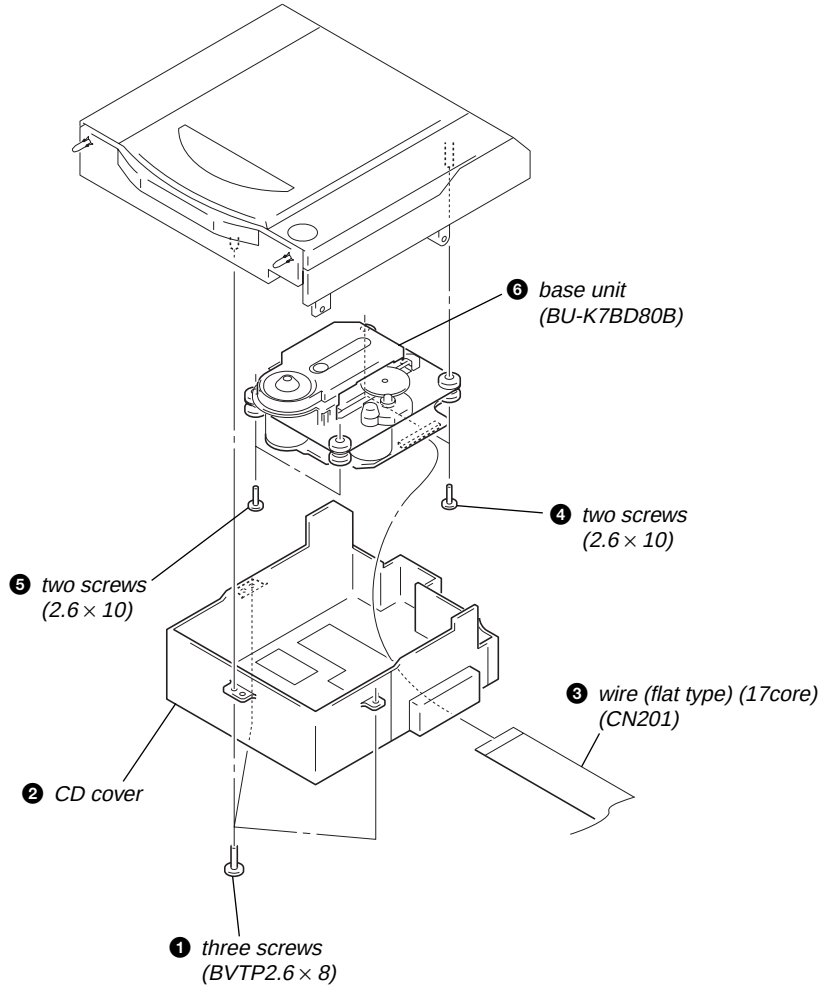
3-3. TOP PANEL ASSY



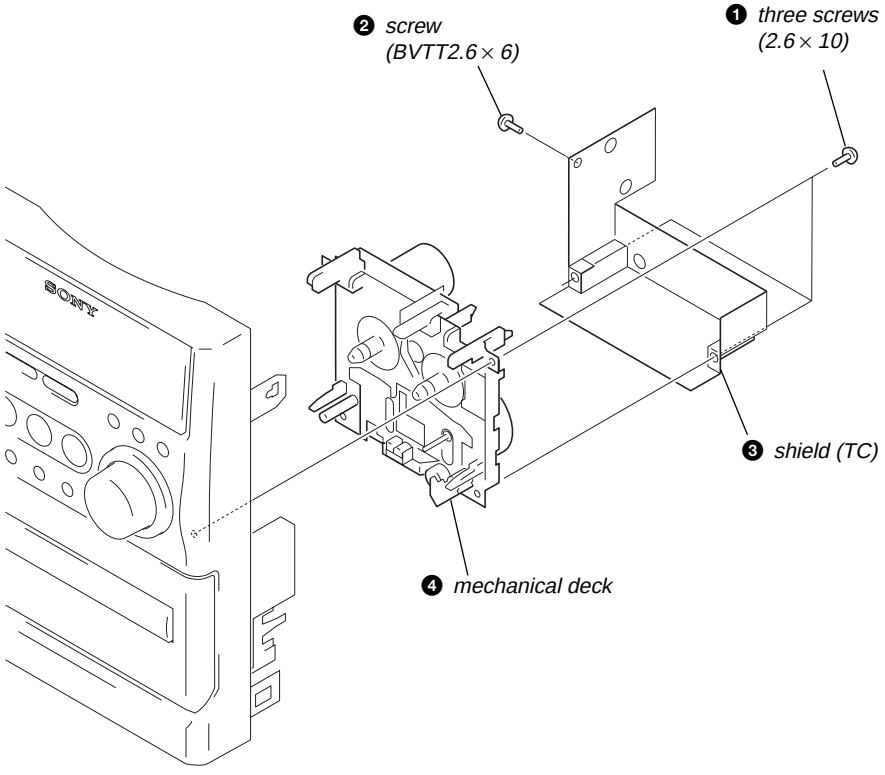
3-4. FRONT PANEL ASSY



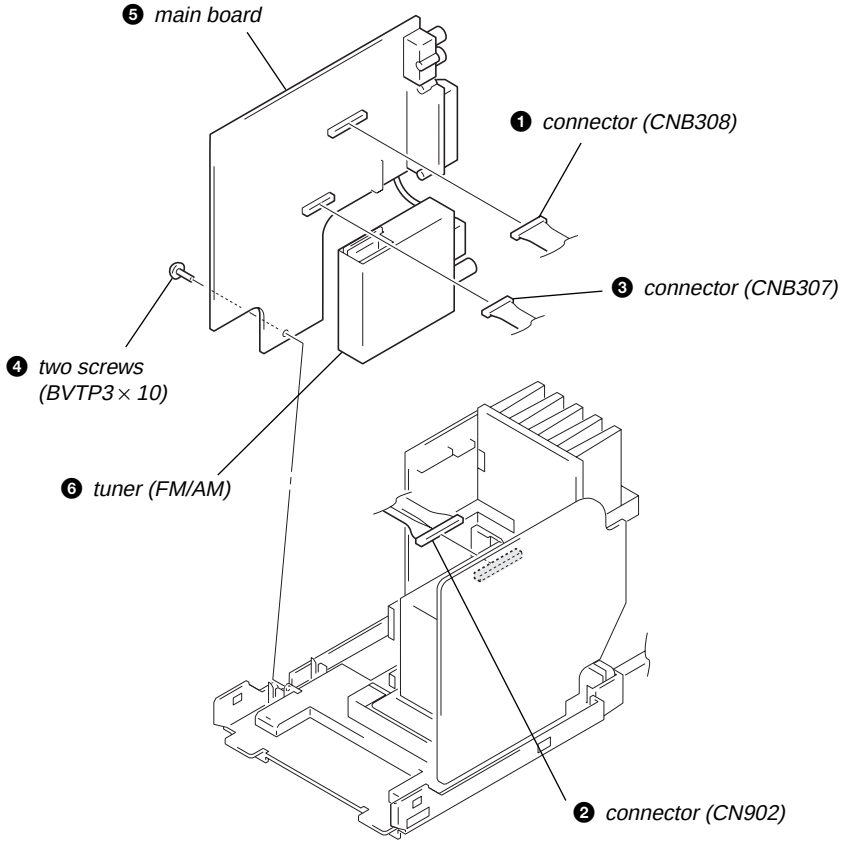
3-5. BASE UNIT (BU-K7BD80B)



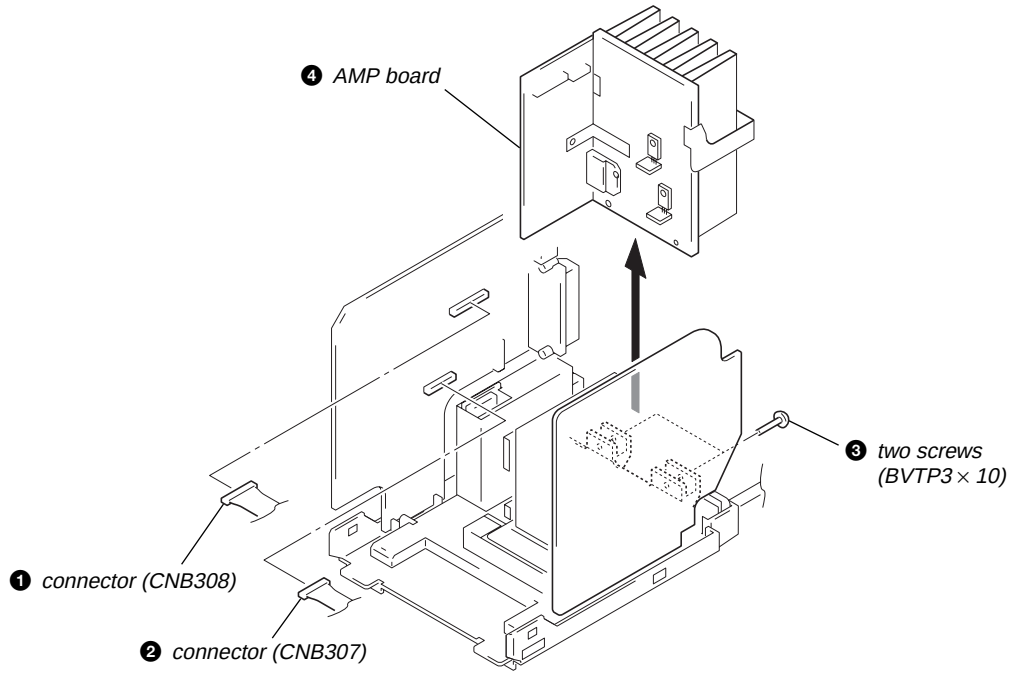
3-6. MECHANICAL DECK



3-7. MAIN BOARD



3-8. AMP BOARD



SECTION 4
TEST MODE

COLD RESET

* The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

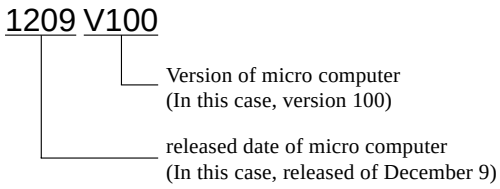
1. Press the I/⏻ button to turn the power on.
2. While pressing the ■ button, press the I/⏻ button and turn the VOLUME knob in the counter-clock wise.
3. The message “RESET” is displayed and the set is reset.

PANEL TEST

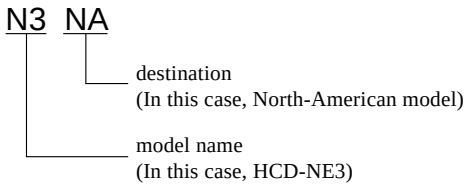
* All segments of liquid crystal display are tested, and the version and released date of the micro computer are displayed.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. While pressing the DISPLAY button, press the I/⏻ button and turn the VOLUME knob in the counter-clock wise. Then all segments of liquid crystal display are turned on.
3. Press the DSGX button, the version and released date of the micro computer are displayed.
   example of display:


1209 V100
Version of micro computer
(In this case, version 100)
released date of micro computer
(In this case, released of December 9)

4. Press the BASS/TREBLE button, the model name and destination are displayed.
   example of display:



5. To exit from this mode, perform the “COLD RESET”.

CD ERROR CODE DISPLAY MODE

• When this mode is entered, optical pick-up error code is displayed with the 8-character format on the liquid crystal display.

Procedure:

1. Press the I/⏻ button to turn the power ON.
2. Press the CD ► II button to select “CD”.
3. While pressing the DISPLAY button, press the PLAY/MODE/TUNING MODE and turn the VOLUME knob in the counter-clockwise.
4. When this mode is activated, CD error code is displayed on the liquid crystal display.
5. Press the TUNING + ►► ►►I and TUNING – I◄◄ ◄◄ buttons, error history No. is changed.

The first digit from the left indicates:
The first digit from the left indicates which mode the error history is. “D” is displayed on the liquid crystal display.

The second digit from the left indicates:
(Error history No. display)
The second digit from the left indicates which order the error history is. “0” indicates the latest error history, and each time the number increases by one, the error history goes back to one-previous error.

The third and 4th digit from the left indicates:
(Error status display)
The third and 4th digit from the left indicates which error status is indicated.

Display	Status
0 1	Not focused (TOC read without a disc)
0 2	GFS NG (TOC read with a disc chucked)
0 3	Start operation time-over
0 4	Defocused continuously (Defocused during TOC reading)
0 5	Q code not entered for specified time
0 6	Tracking not turned ON
0 7	Blank disc (Blank disc TOC read)

The 5th and 6th digit from the left indicates:
(Error step display)
The 5th and 6th digit from the left indicates which processing when a trouble occurred

Display	Contents
0 1	SHIP in progress
0 2	Power OFF in progress
0 3	Power ON in progress
0 4	Initialize in progress
0 5	Oscillation stopping
0 6	From oscillation stop, oscillation starting
0 7	Stopping
0 8	Stop operation is under way
0 9	Start operation in progress
0 A	TOC read in progress
0 B	Search operation is under way
0 C	Playback operation is under way
0 D	Pause operation is under way
0 E	Playback manual search operation is under way
0 F	Pause manual search operation is under way

The 7th and 8th digit from the left indicates:
The 7th and 8th digit from the left indicates which operation in progress when a trouble occurred. (Step of each processing of the 5th and 6th digits is indicated)

5 REPEAT LIMIT CANCEL MODE

• Number of repeat for CD playback is 5 times when the repeat mode is “REPEAT”. This mode is used to enables CD to repeat playback for limitless times.

Procedure:

1. Press the I/⏻ button to turn the power ON.
2. Press the CD ► II button to select “CD”.
3. While pressing the ■ button, press the PLAY MODE/TUNING MODE and turn the VOLUME knob in the counter-clockwise.
4. The message “NO LIMIT” is displayed on the liquid crystal display momentarily, CD repeat 5 limit is cancelled.

TUNER STEP CHANGE-OVER

* Either the 9 kHz step or 10 kHz step can be selected for the AM channel step.

Procedure:

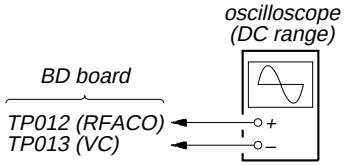
1. Set the FUNCTION to AM, and press the I/⏻ button to turn the power off.
2. While depressing the TUNING + ▶▶ ▶▶I button, press the I/⏻ button.
3. The message “9K STEP” or “10K STEP” is displayed on the liquid crystal display, and thus the channel step is changed over.

SECTION 5
ELECTRICAL CHECK

Note:

1. CD Block is basically constructed to operate without adjustment.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Check the focus bias check when optical block is replaced.

FOCUS BIAS CHECK

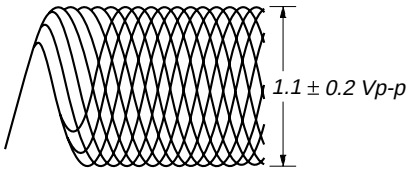


Procedure :

1. Connect the oscilloscope to TP012 (RFACO) and TP013 (VC) on the BD board.
2. Insert the disc (YEDS-18). (Part No. : 3-702-101-01)
3. Press the CD ► II button.
4. Confirm that the oscilloscope waveform is as shown in the figure below. (eye pattern)
   A good eye pattern means that the diamond shape (◊) in the center of the waveform can be clearly distinguished.

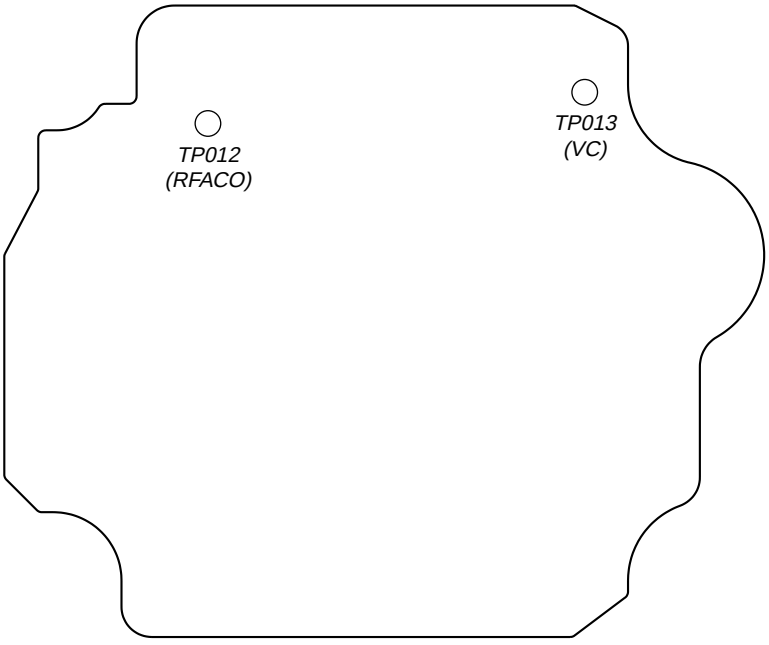
• RF signal reference waveform (eye pattern)

VOLT/DIV: 0.2 V (with the 10: 1 probe in use.)
TIME/DIV: 500 ns



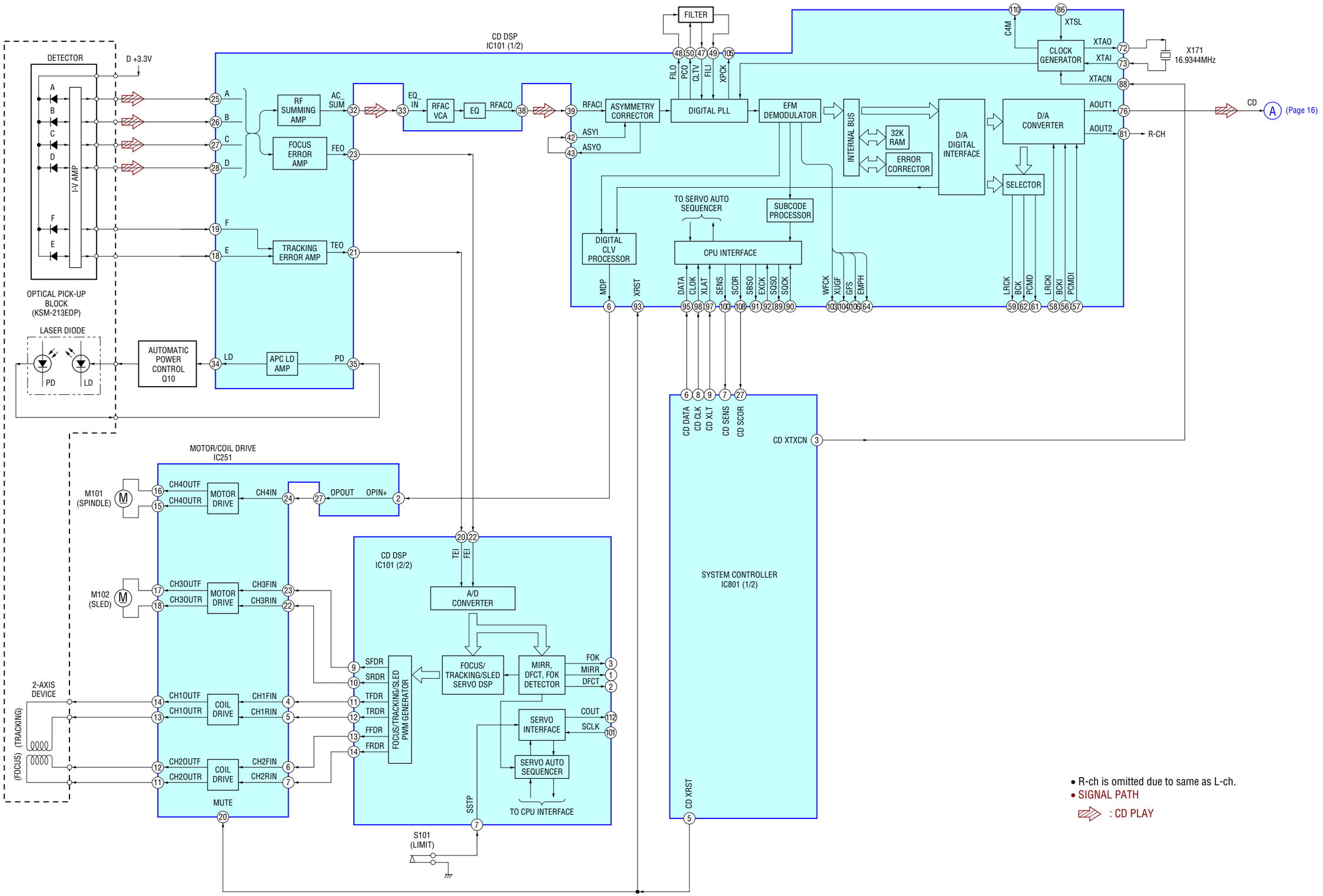
When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

Checking Location:
– BD BOARD (Conductor Side) –



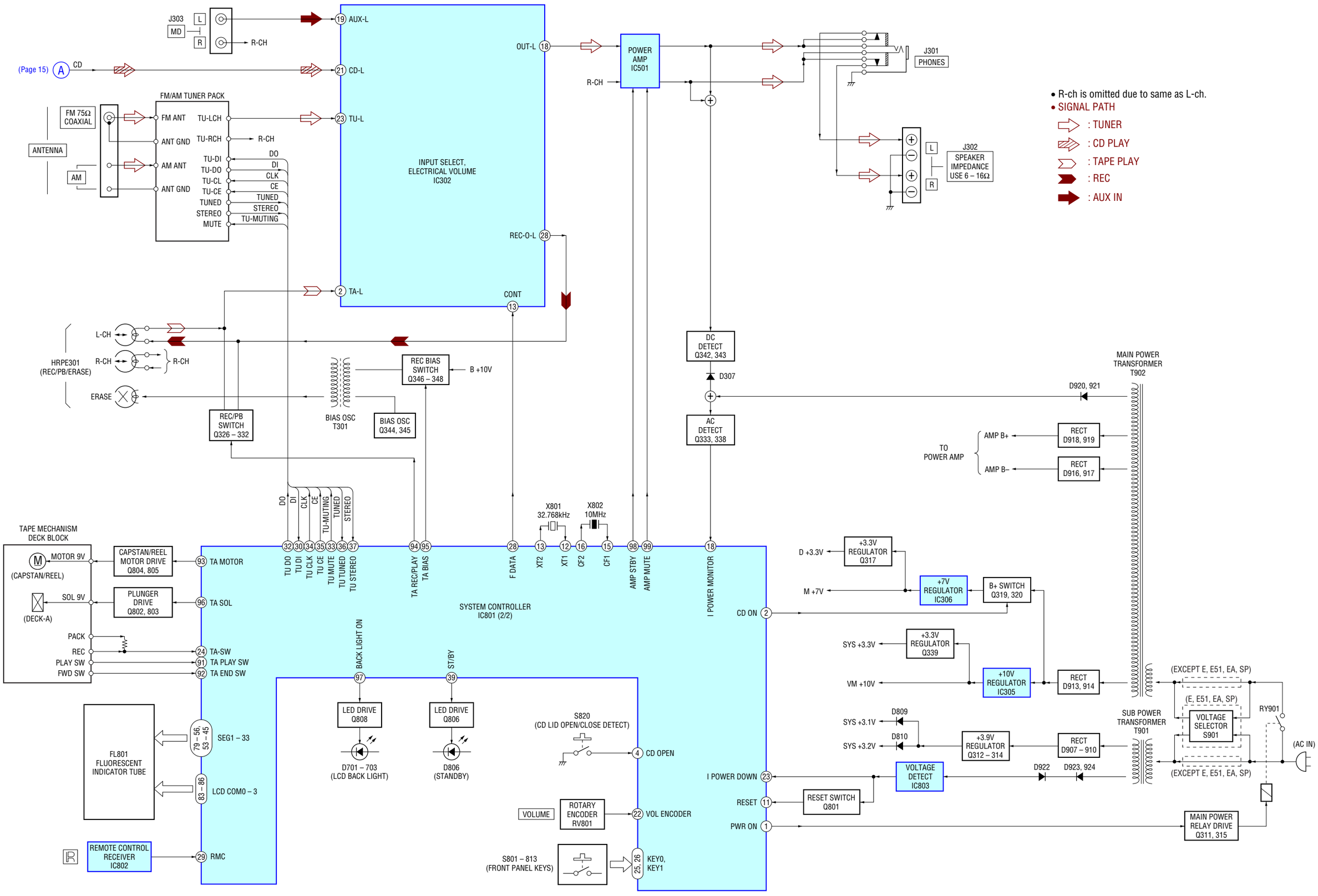
SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM – CD SERVO Section –



- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  : CD PLAY

6-2. BLOCK DIAGRAM – MAIN Section –



6-3. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

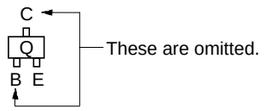
Note on Printed Wiring Board:

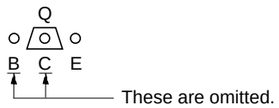
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

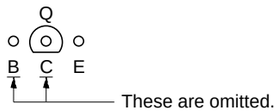
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor.







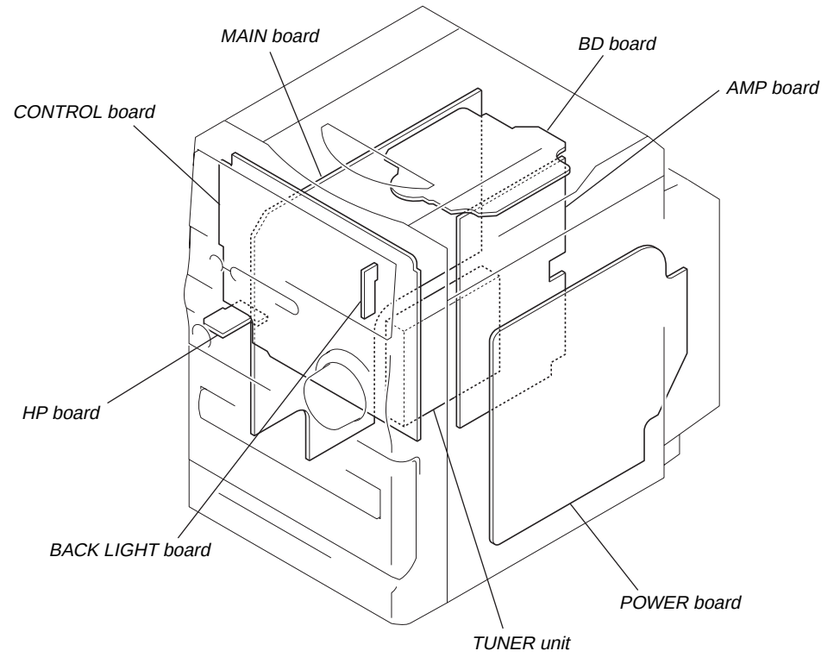
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

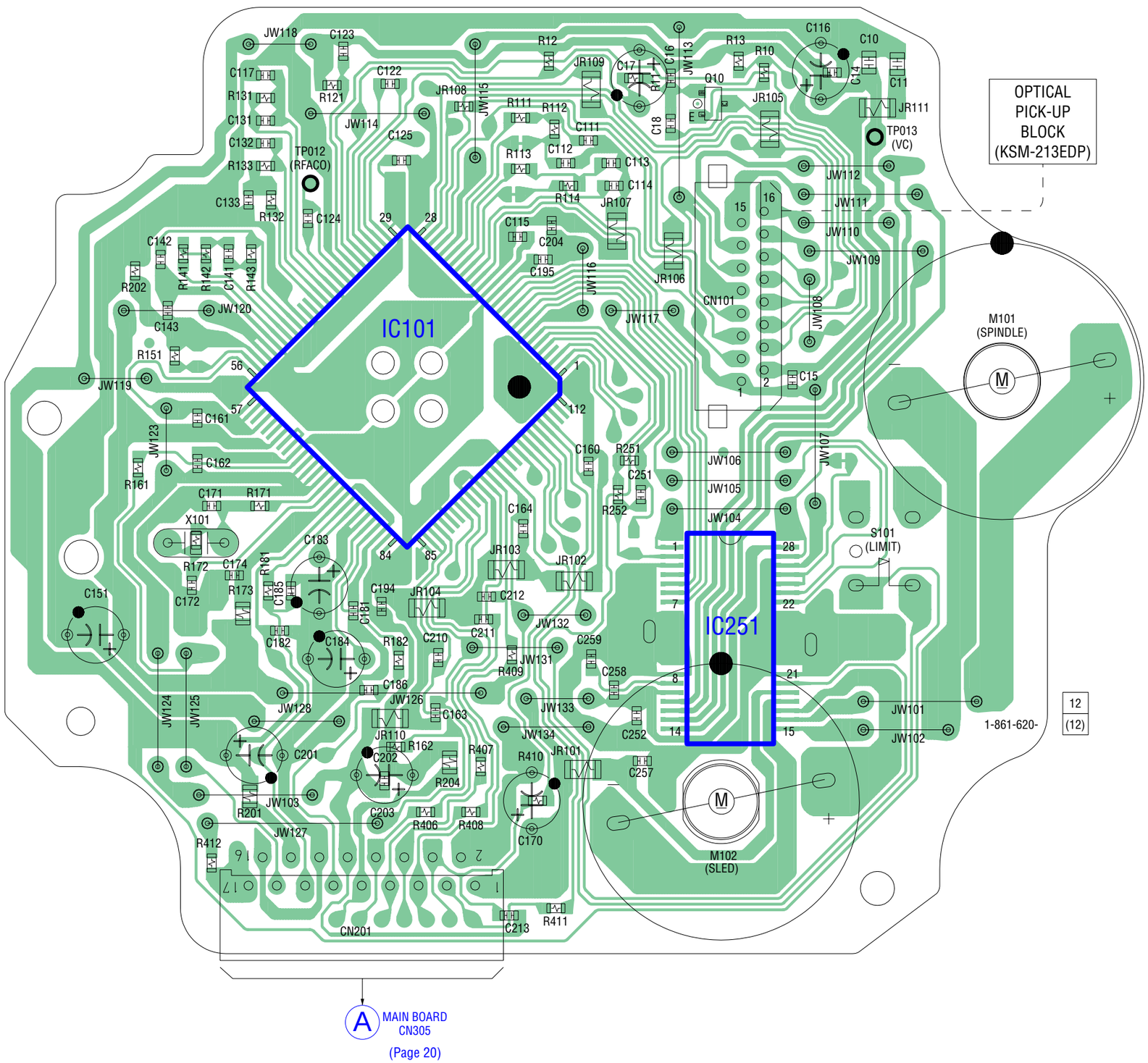
- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  – CD Board –
  no mark : CD PLAY
  – Other Sections –
  no mark : TUNER
  ( ) : CD PLAY
  ⟨⟨ ⟩⟩ : TAPE PLAY
  { } : REC
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : TUNER
  ⇨ : CD PLAY
  ⇨ : TAPE PLAY
  ⇨ : REC
  ⇨ : AUX IN
- Abbreviation
  AR : Argentina model
  AUS : Australian model
  CND : Canadian model
  E51 : Chilean and Peruvian models
  EA : Saudi Arabia model
  KR : Korean model
  MX : Mexican model
  SP : Singapore model
  TW : Taiwan model

- **Circuit Boards Location**

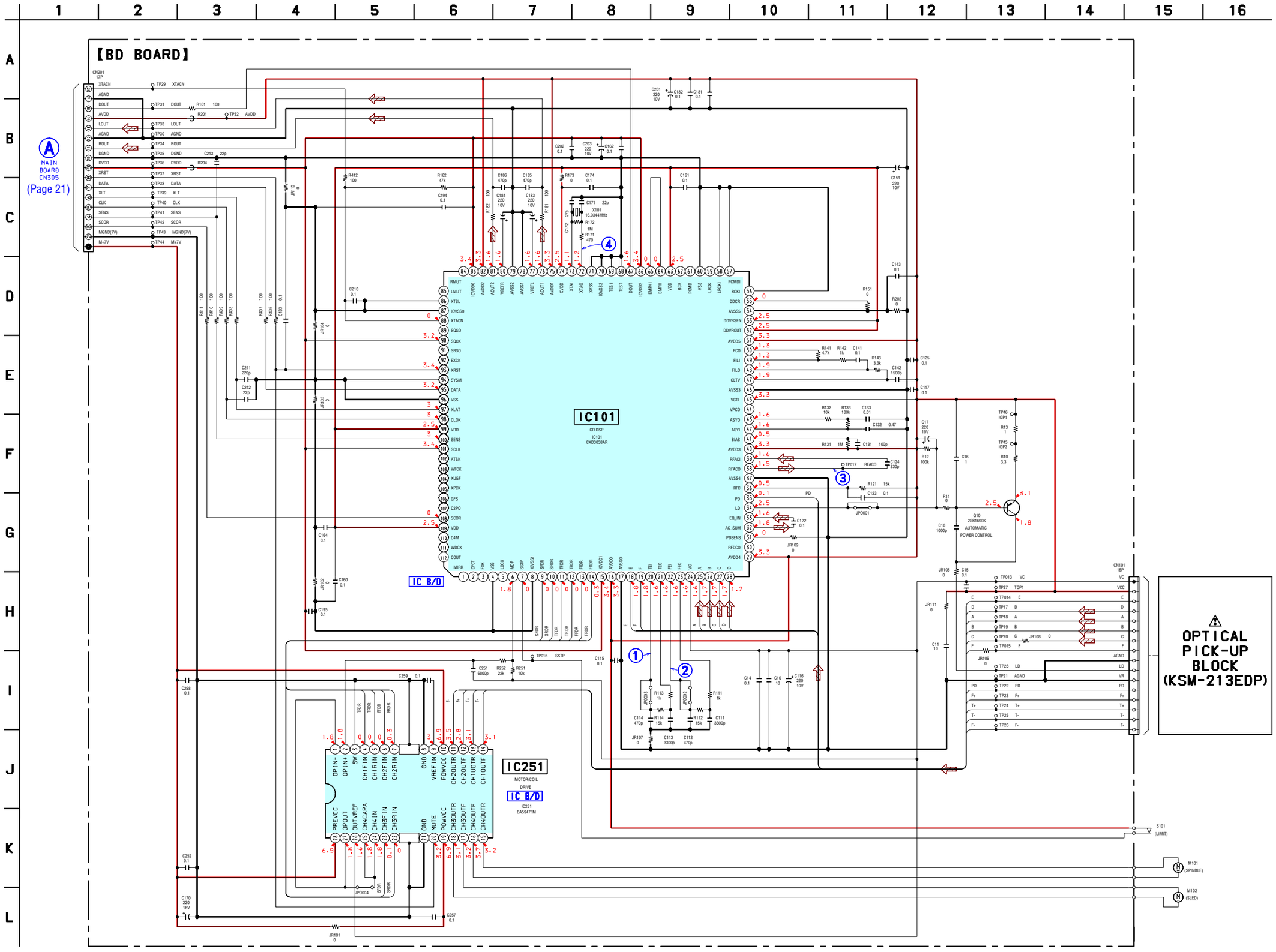


6-4. PRINTED WIRING BOARD – BD Board – • See page 17 for Circuit Boards Location. :Uses unleaded solder.

【BD BOARD】



6-5. SCHEMATIC DIAGRAM – BD Board – • See page 28 for IC Block Diagrams. • See page 28 for Waveforms.



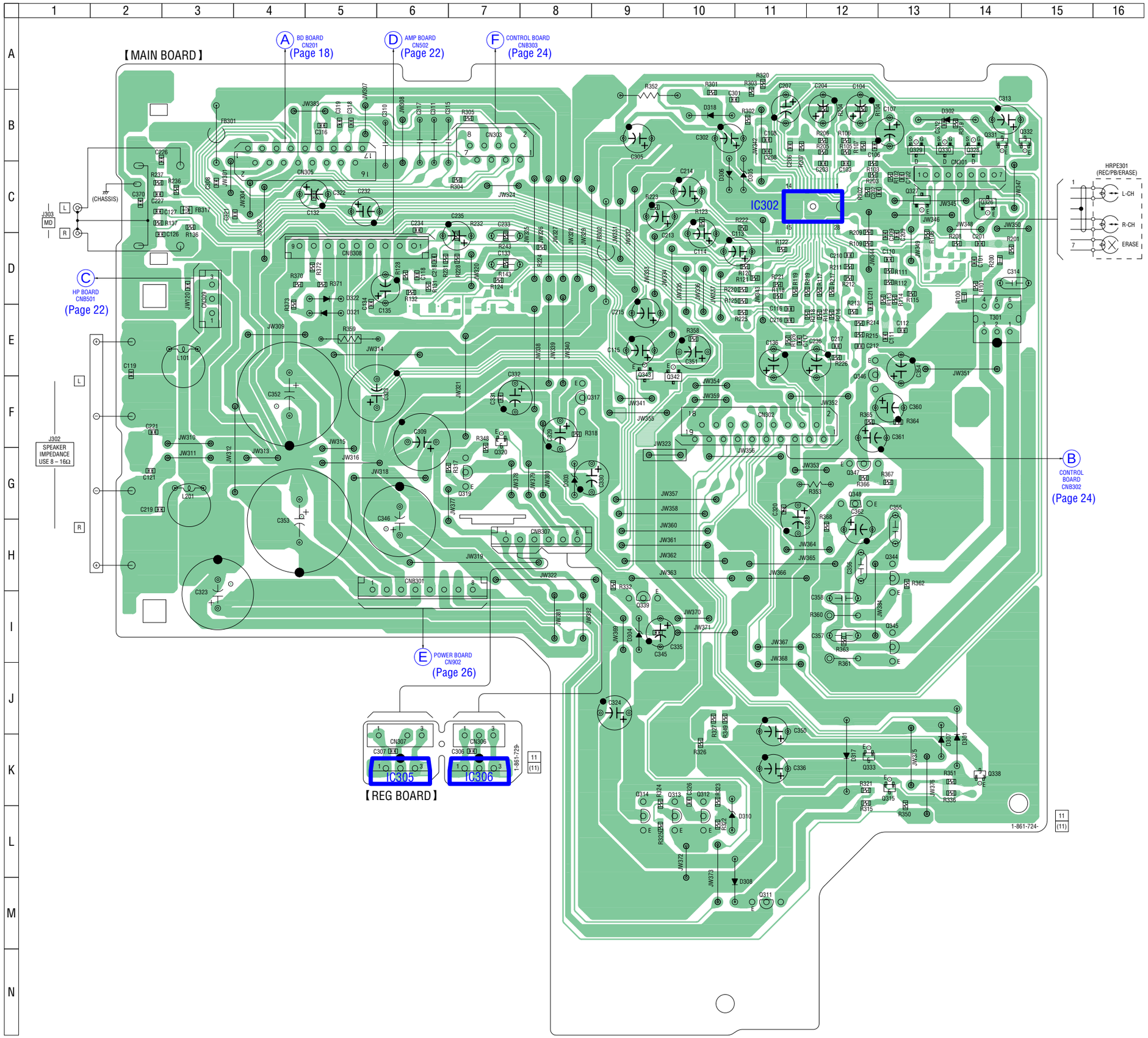
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-6. PRINTED WIRING BOARDS – MAIN Section –

• See page 17 for Circuit Boards Location. :Uses unleaded solder.

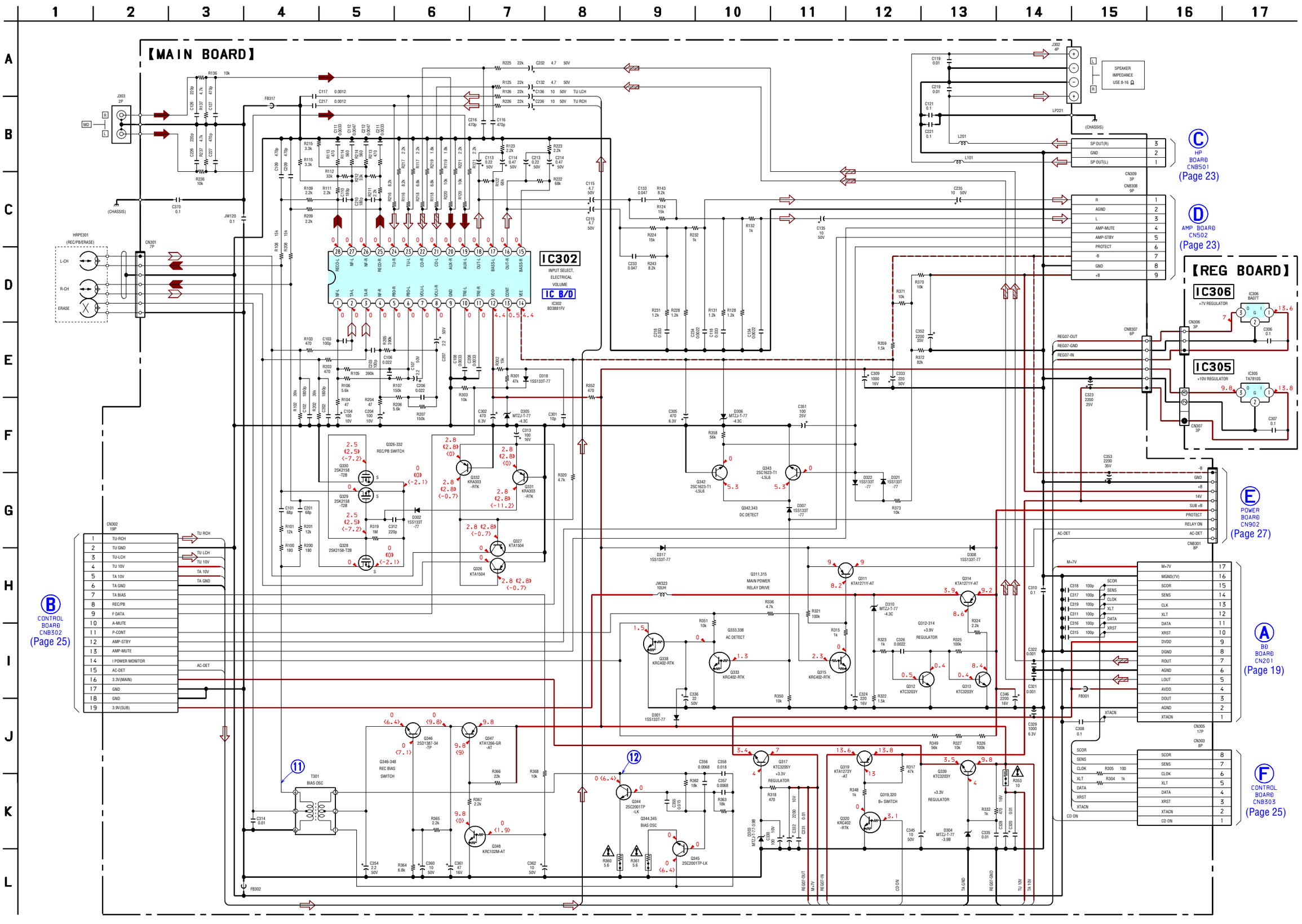
• **Semiconductor Location**

Ref. No.	Location
D301	K-14
D302	B-13
D303	G-8
D304	I-9
D305	C-11
D306	C-10
D307	K-13
D308	M-10
D310	L-10
D317	K-12
D318	B-10
D321	E-5
D322	D-5
IC302	C-12
IC305	K-6
IC306	K-7
Q311	M-11
Q312	L-10
Q313	L-10
Q314	L-9
Q315	K-13
Q317	F-8
Q319	G-7
Q320	F-7
Q326	C-14
Q327	C-13
Q328	B-14
Q329	B-13
Q330	B-13
Q331	B-14
Q332	B-15
Q333	K-12
Q338	K-14
Q339	I-9
Q342	F-10
Q343	E-9
Q344	H-13
Q345	I-13
Q346	E-12
Q347	G-12
Q348	G-12



6-7. SCHEMATIC DIAGRAM – MAIN Section –

• See page 28 for IC Block Diagram. • See page 28 for Waveforms.

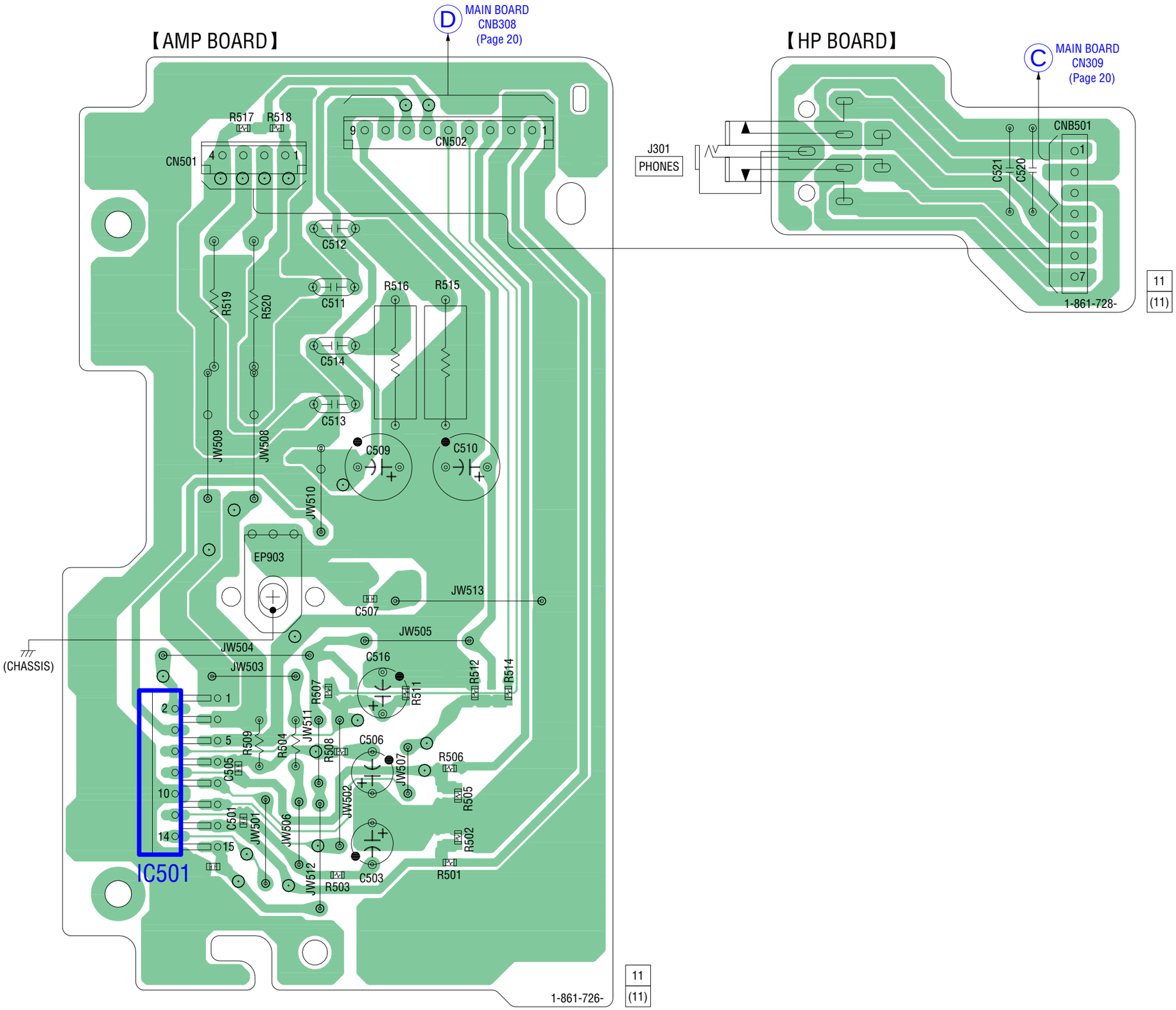


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

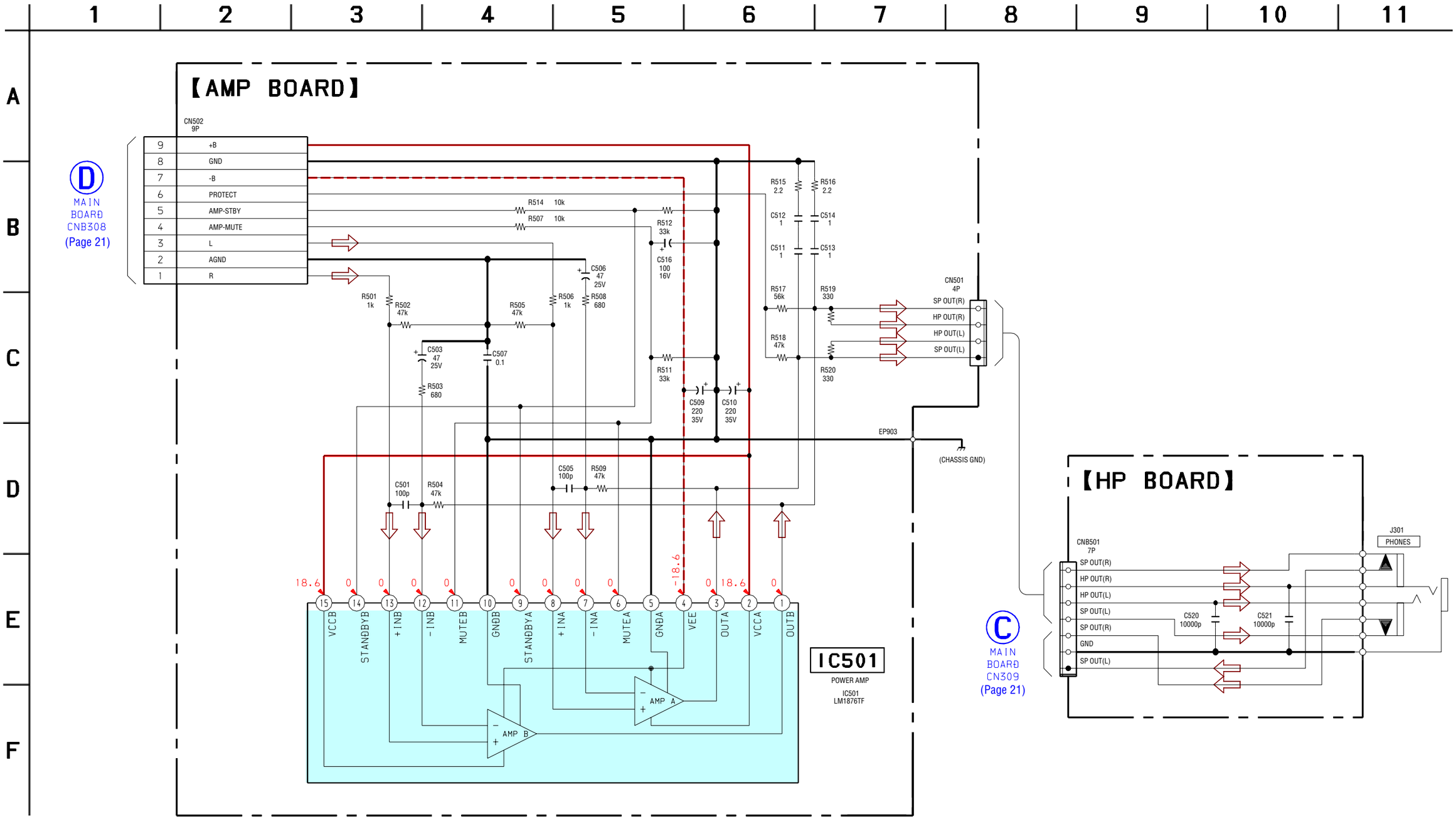
6-8. PRINTED WIRING BOARDS – AMP Section –

• See page 17 for Circuit Boards Location.

:Uses unleaded solder.



6-9. SCHEMATIC DIAGRAM – AMP Section –



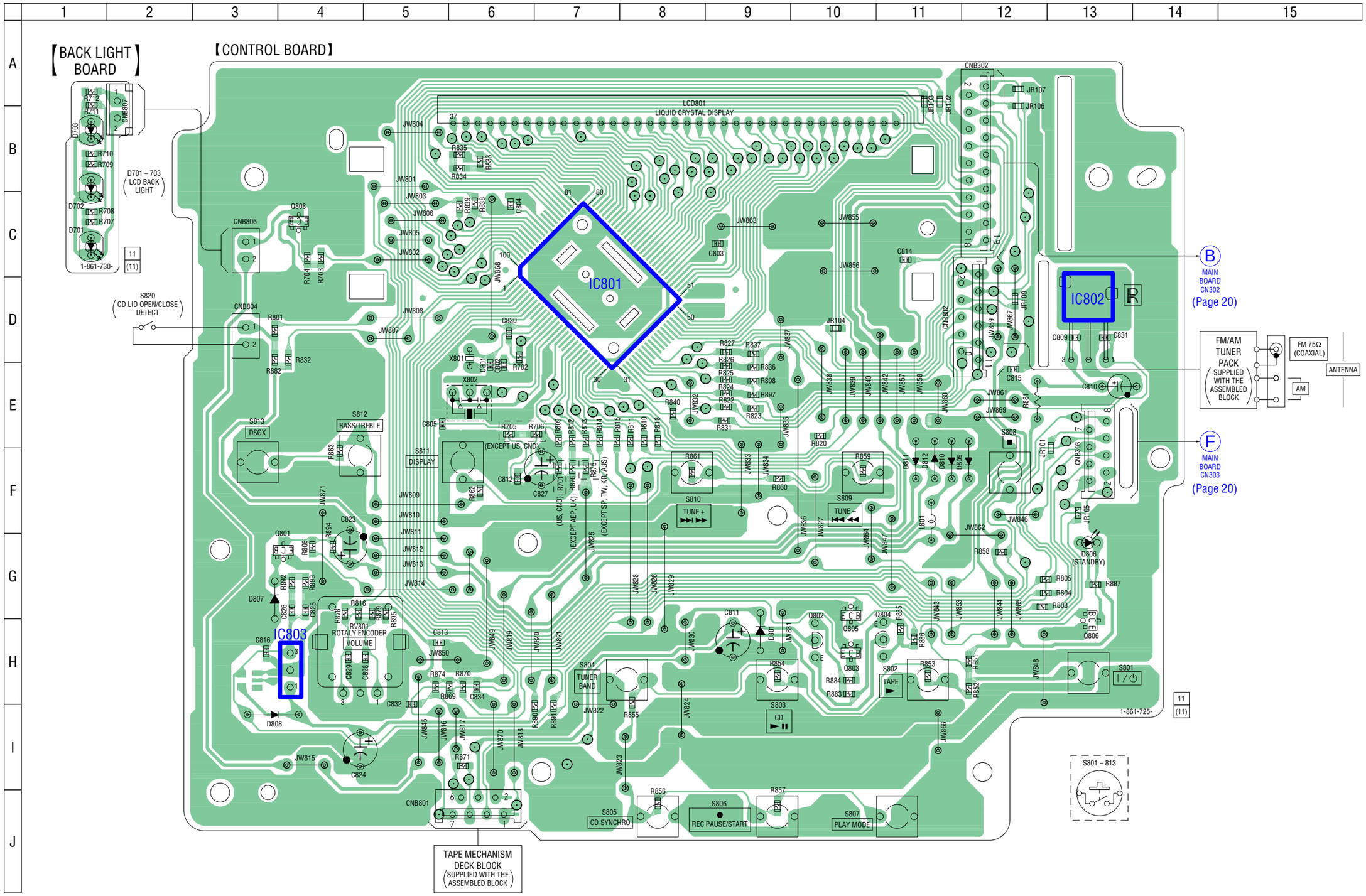
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-10. PRINTED WIRING BOARDS – PANEL Section –

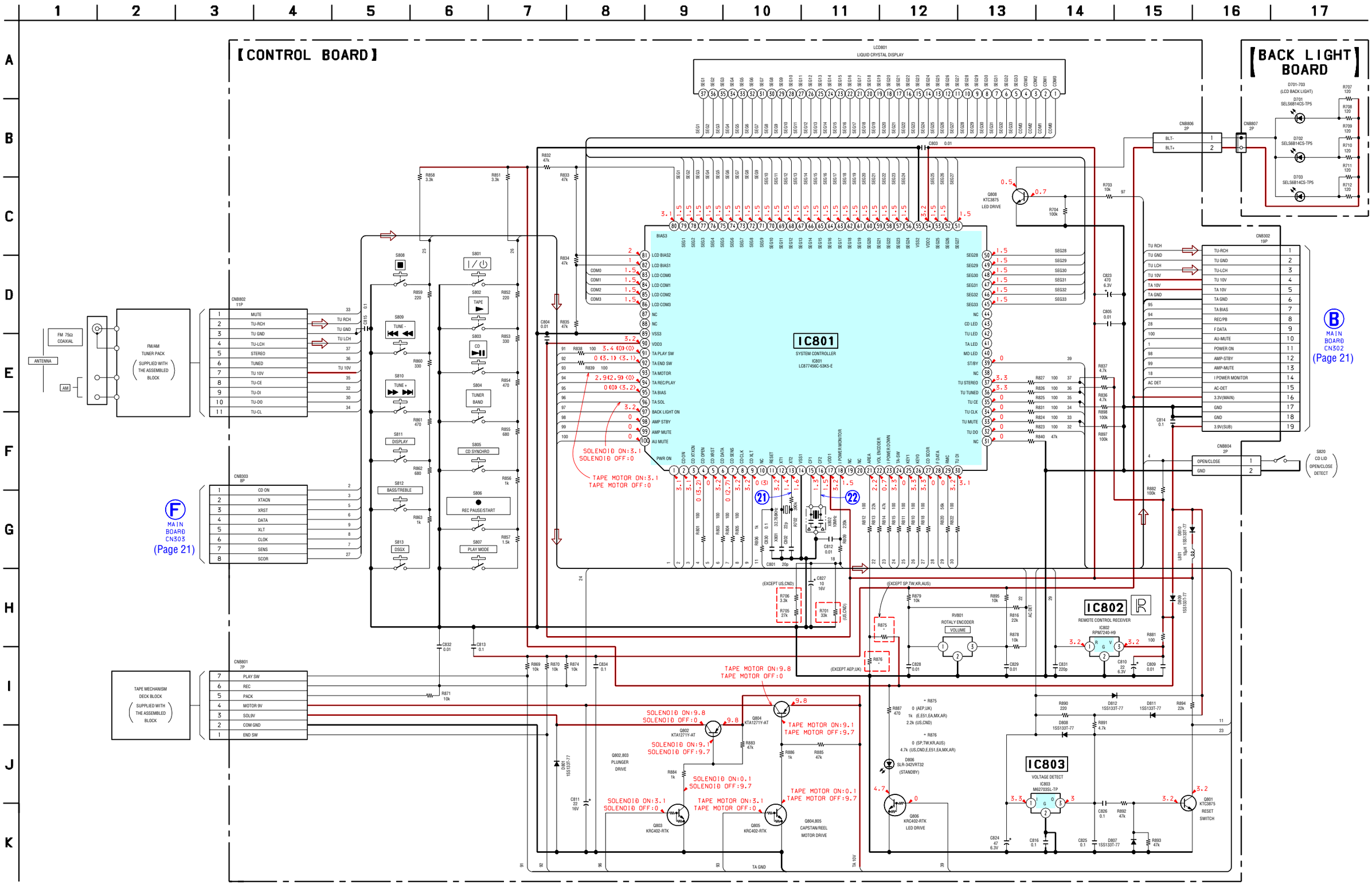
• See page 17 for Circuit Boards Location. :Uses unleaded solder.

- **Semiconductor Location**

Ref. No.	Location
D701	C-1
D702	B-1
D703	B-1
D801	H-9
D806	G-13
D807	G-3
D808	I-3
D809	F-12
D810	F-11
D811	F-11
D812	F-11
IC801	D-7
IC802	D-13
IC803	H-4
Q801	G-4
Q802	H-10
Q803	H-10
Q804	H-11
Q805	H-10
Q806	H-13
Q808	C-4



6-11. SCHEMATIC DIAGRAM – PANEL Section – • See page 28 for Waveforms. • See page 30 for IC Pin Function Description.



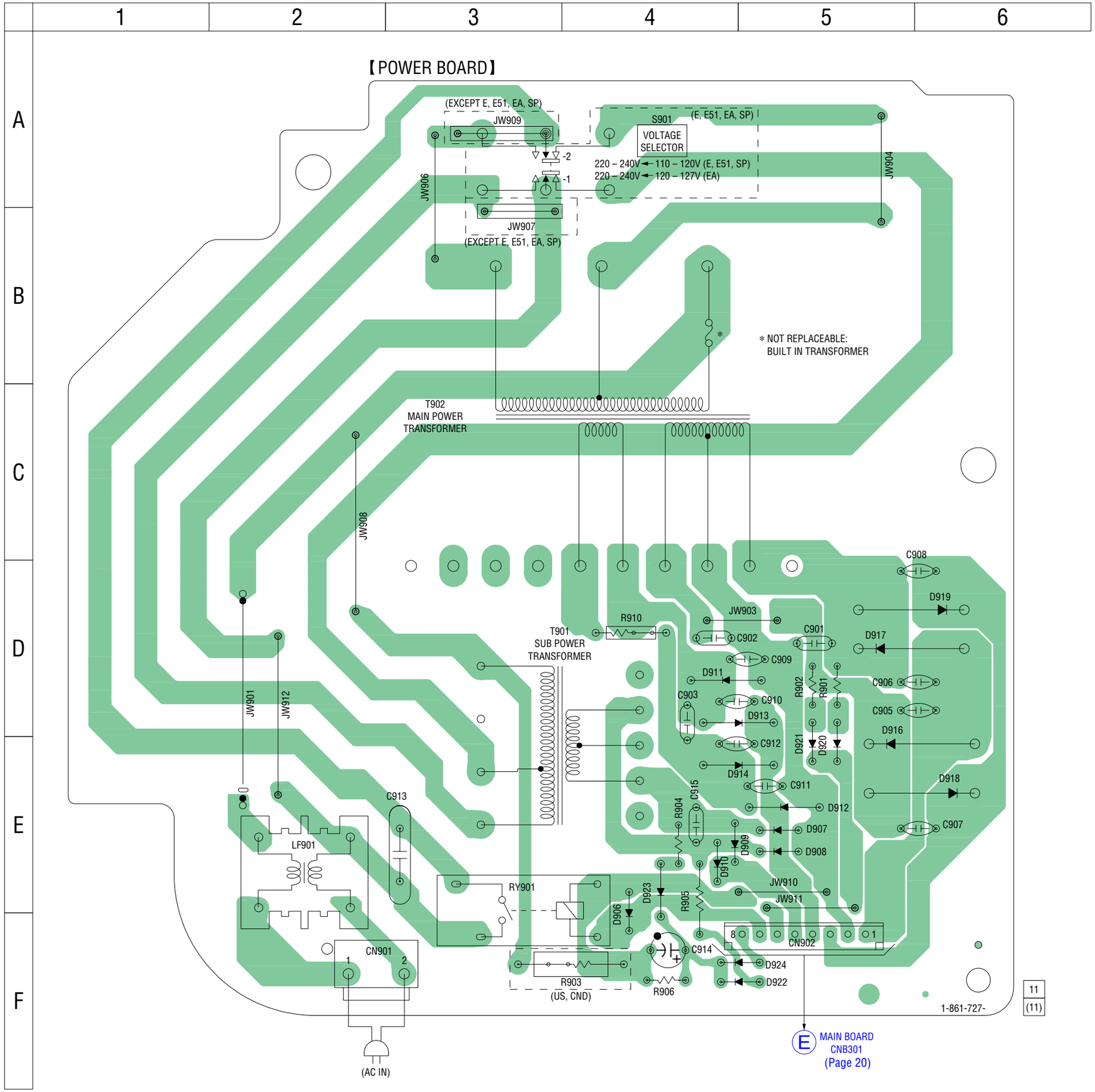
6-12. PRINTED WIRING BOARD – POWER Board –

• See page 17 for Circuit Boards Location.

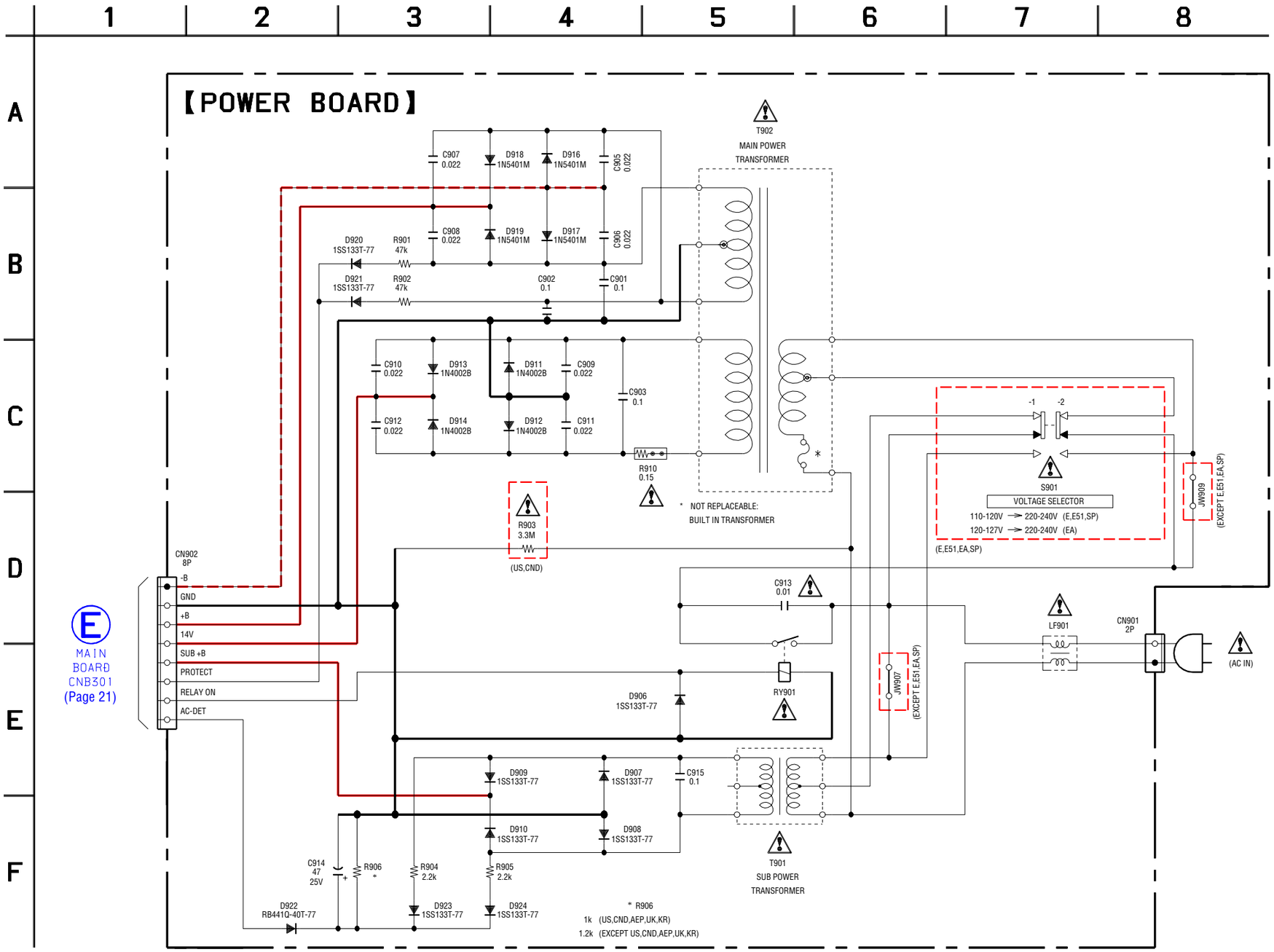
:Uses unleaded solder.

• **Semiconductor Location**

Ref. No.	Location
D906	F-4
D907	E-5
D908	E-5
D909	E-4
D910	E-4
D911	D-4
D912	E-5
D913	D-5
D914	E-5
D916	E-5
D917	D-5
D918	E-6
D919	D-6
D920	E-5
D921	E-5
D922	F-5
D923	E-4
D924	F-5



6-13. SCHEMATIC DIAGRAM – POWER Board –

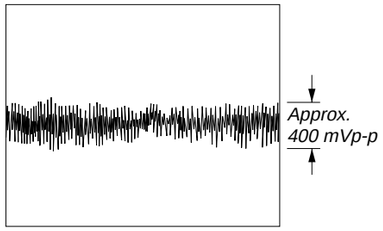


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

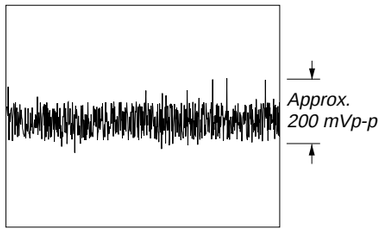
• **Waveforms**

– BD Board –

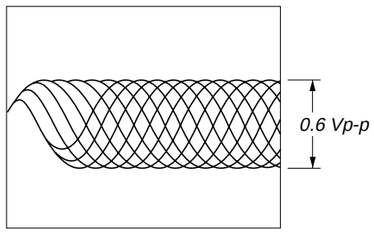
① IC101 ⑳ (TEI) (CD Play mode)



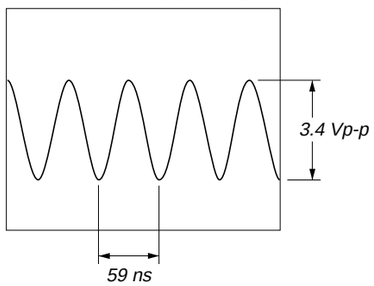
② IC101 ㉒ (FEI) (CD Play mode)



③ IC101 ㊳ (RFACO) (CD Play mode)

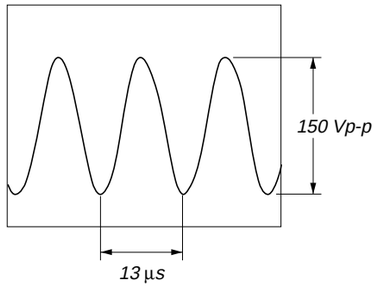


④ IC101 ⑫ (XTAO) (CD Play mode)

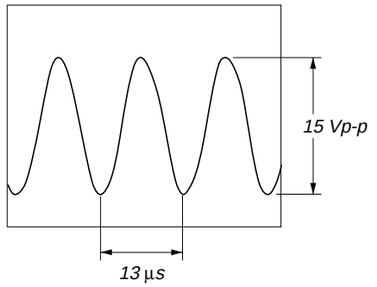


– MAIN Board –

⑪ T301 ④ (REC mode)

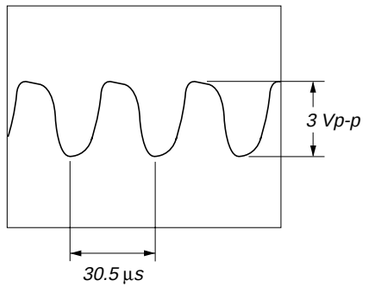


⑫ Q344 (Collector) (REC mode)

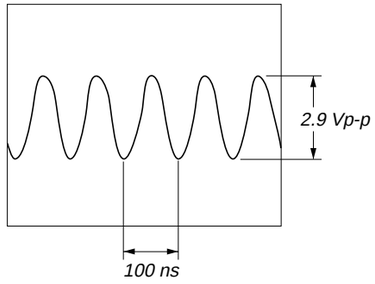


– CONTROL Board –

㉑ IC801 ⑬ (XT2)



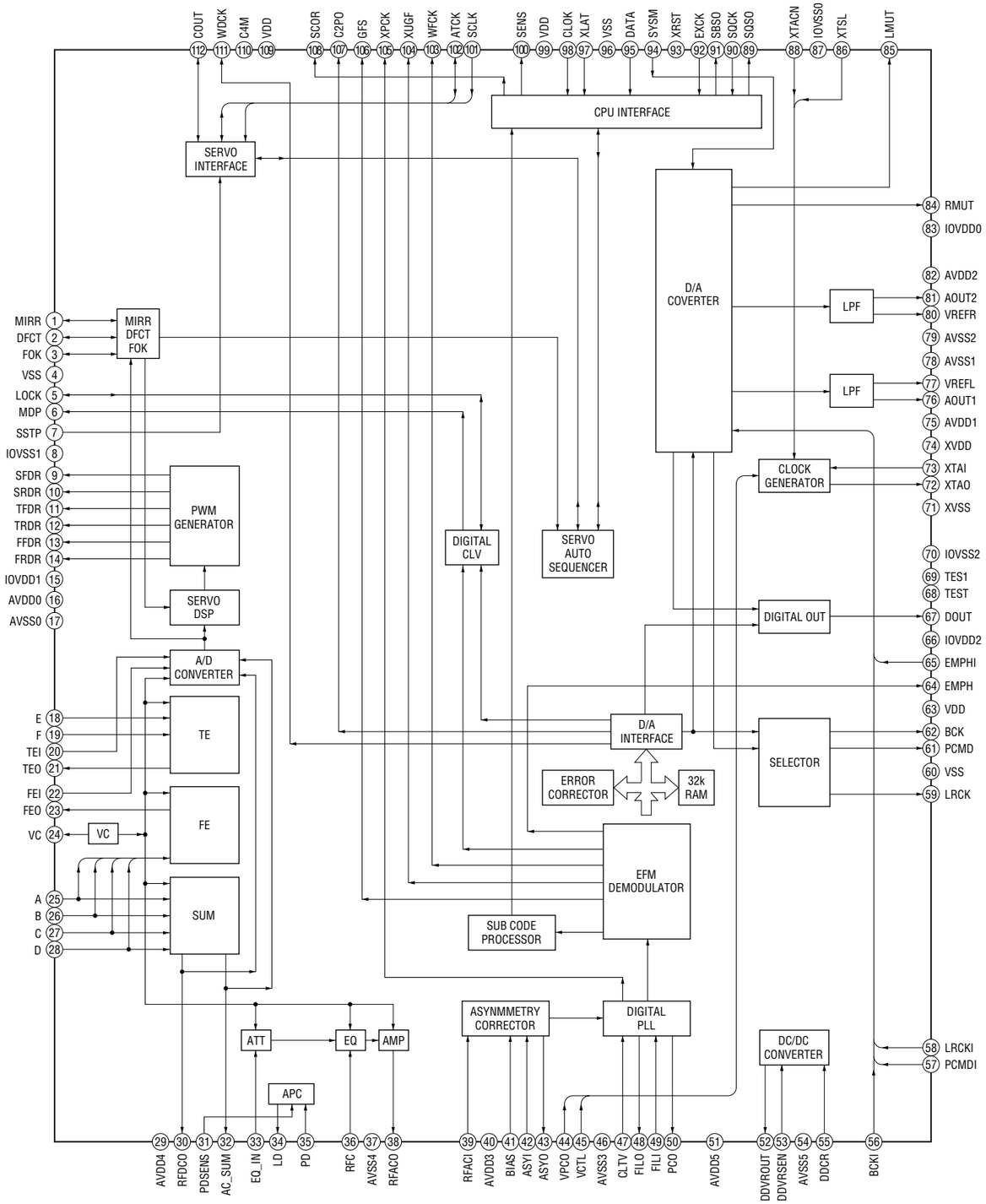
㉒ IC801 ⑯ (CF2)



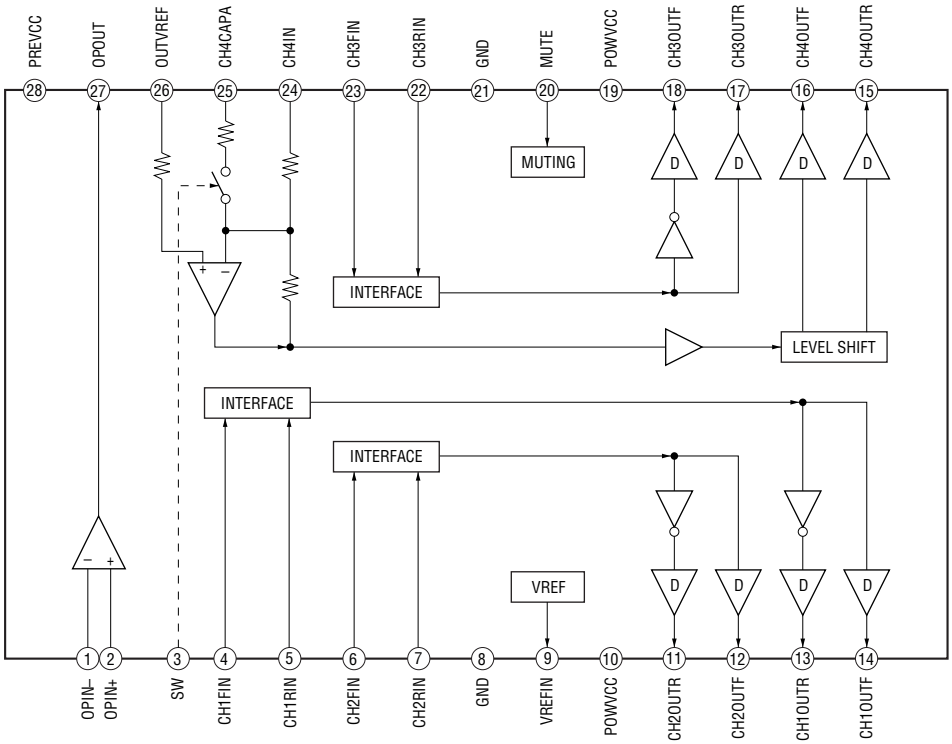
• **IC Block Diagrams**

– BD Board –

IC101 CXD3058AR

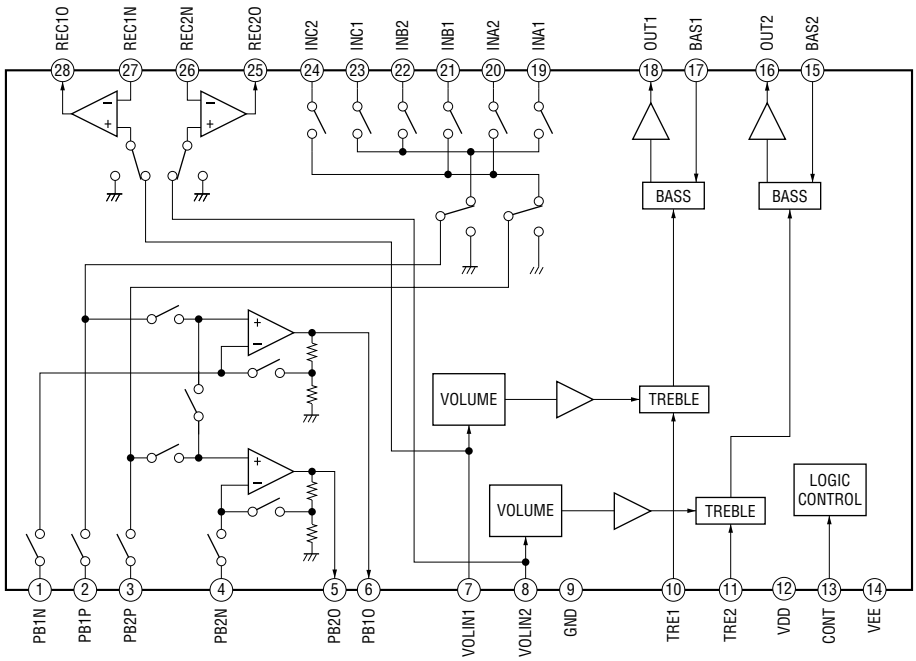


IC251 BA5947FM



– MAIN Board –

IC302 BD3881FV



- **IC Pin Function Description**

CONTROL BOARD IC801 LC877456C-53K5-E (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	PWR ON	O	Power relay drive signal output terminal "H": on
2	CD ON	O	Power on/off control signal output for the CD mechanism section
3	CD XTXCN	O	Oscillation circuit control signal output to the CD DSP "H": auto oscillation, "L": oscillation off
4	CD OPEN	I	CD lid open/close detection switch input terminal
5	CD XRST	O	Reset signal output to the CD DSP
6	CD DATA	O	Serial data output to the CD DSP
7	CD SENS	I	Internal status (SENSE) signal input from the CD DSP
8	CD CLK	O	Serial data transfer clock signal output to the CD DSP
9	CD XLT	O	Serial data latch pulse output to the CD DSP
10	NC	—	Not used
11	RESET	I	Reset signal input from the reset switch "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
12	XT1	I	Sub system clock input terminal (32.768 kHz)
13	XT2	O	Sub system clock output terminal (32.768 kHz)
14	VSS1	—	Ground terminal
15	CF1	I	Main system clock input terminal (10 MHz)
16	CF2	O	Main system clock output terminal (10 MHz)
17	VDD1	—	Power supply terminal (+3.2V)
18	I POWER MONITOR	I	Power monitor input terminal
19, 20	NC	—	Not used
21	AREA	I	Model destination setting terminal
22	VOL ENCODER	I	Dial pulse input of the rotary encoder (for VOLUME control)
23	I POWER DOWN	I	Power down detection signal input terminal "L": power down, normally : "H"
24	TA-SW	I	Cassette in/out detect switch signal input from the tape mechanism deck "L": cassette in
25, 26	KEY1, KEY0	I	Front panel key input terminal (A/D input)
27	CD SCOR	I	Subcode sync (S0+S1) detection signal input from the CD DSP
28	F DATA	O	Serial data output to the electrical volume
29	RMC	I	Remote control signal input from the remote control receiver
30	TU DI	I	Serial data input from the FM/AM tuner unit
31	NC	—	Not used
32	TU DO	O	Serial data output to the FM/AM tuner unit
33	TU MUTE	O	Tuner muting on/off control signal output to the FM/AM tuner unit
34	TU CLK	O	serial data transfer clock signal output to the FM/AM tuner unit
35	TU CE	O	Chip enable signal output to the FM/AM tuner unit
36	TU TUNED	I	Tuning detection signal input from the FM/AM tuner unit
37	TU STEREO	I	FM stereo detection signal input from the FM/AM tuner unit
38	NC	—	Not used
39	ST/BY	O	LED drive signal output terminal
40	MD LED	O	LED drive signal output terminal

Pin No.	Pin Name	I/O	Description
41	TA LED	O	LED drive signal output terminal
42	TU LED	O	LED drive signal output terminal
43	CD LED	O	LED drive signal output terminal
44	NC	—	Not used
45 to 53	SEG33 to SEG25	O	Segment drive signal output to the fluorescent indicator tube
54	VDD2	—	Power supply terminal (+3.1V)
55	VSS2	—	Ground terminal
56 to 79	SEG24 to SEG1	O	Segment drive signal output to the fluorescent indicator tube
80	BIAS3	I	Power supply output for the liquid crystal display bias
81	LCD BIAS2	I	Power supply output for the liquid crystal display bias
82	LCD BIAS1	I	Power supply output for the liquid crystal display bias
83 to 86	LCD COM0 to LCD COM3	O	Common drive signal output to the liquid crystal display (D621)
87, 88	NC	—	Not used
89	VSS3	—	Ground terminal
90	VDD3	—	Power supply terminal (+3.1V)
91	TA PLAY SW	I	PLAY switch signal input from the tape mechanism deck
92	TA END SW	I	END switch signal input from the tape mechanism deck
93	TA MOTOR	O	Capstan/reel motor on/off control signal output terminal “H”: motor on
94	TA REC/PLAY	O	Recording/playback selection signal output terminal “H”: playback mode, “L”: recording mode
95	TA BIAS	O	Recording bias on/off selection signal output terminal “H”: bias on, “L”: bias off
96	TA SOL	O	Trigger plunger on/off control signal output terminal “H”: plunger on
97	BACK LIGHT ON	O	LED drive signal output terminal for the LCD back light
98	AMP STBY	O	Standby control signal output to the power amplifier
99	AMP MUTE	O	Tuner muting on/off control signal output to the power amplifier
100	AU MUTE	O	Line muting on/off control signal output terminal Not used

SECTION 7
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation

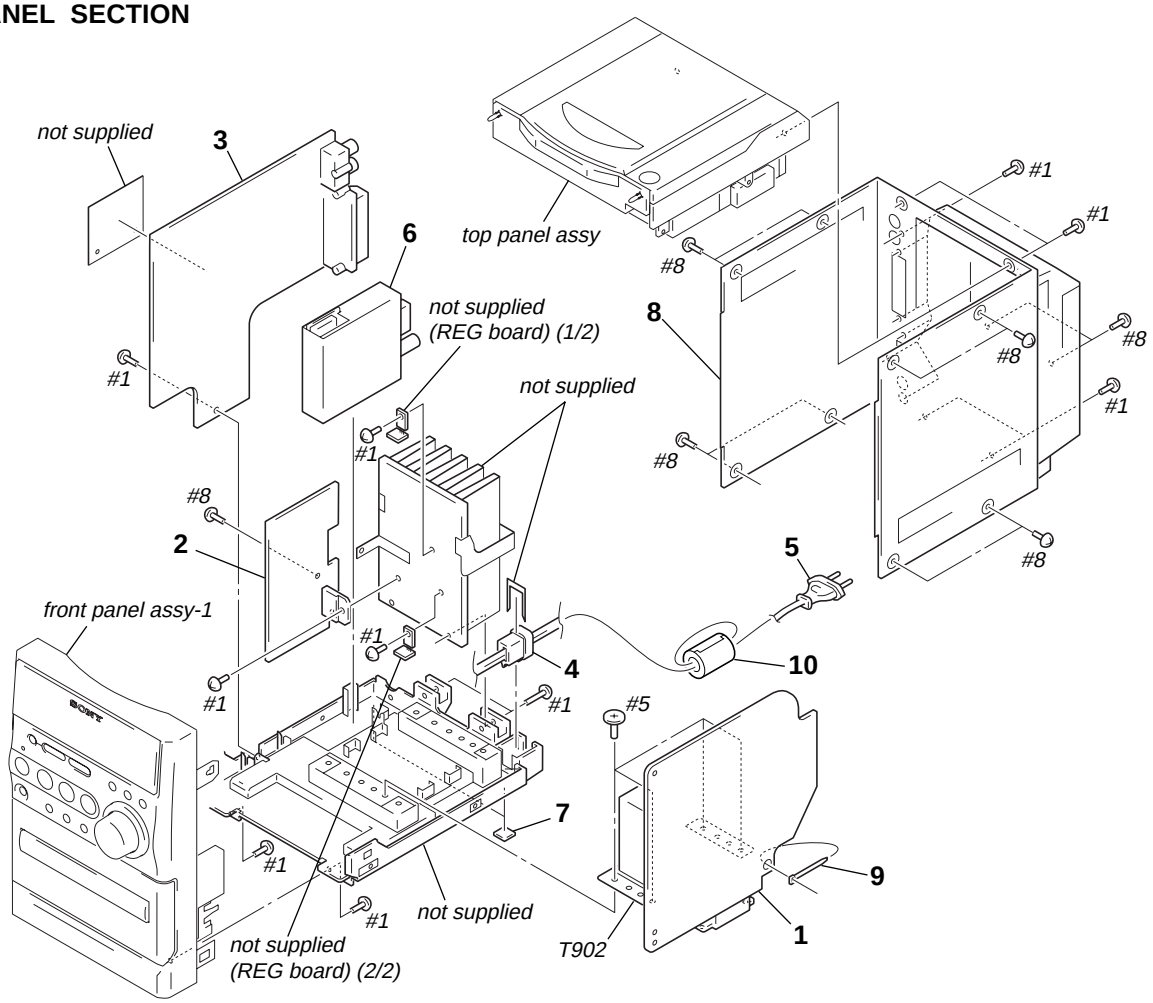
AR	: Argentina model	E51	: Chilean and Peruvian model	MX	: Mexican model
AUS	: Australian model	EA	: Saudi Arabia model	SP	: Singapore model
CND	: Canadian model	KR	: Korea model	TW	: Taiwan model

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

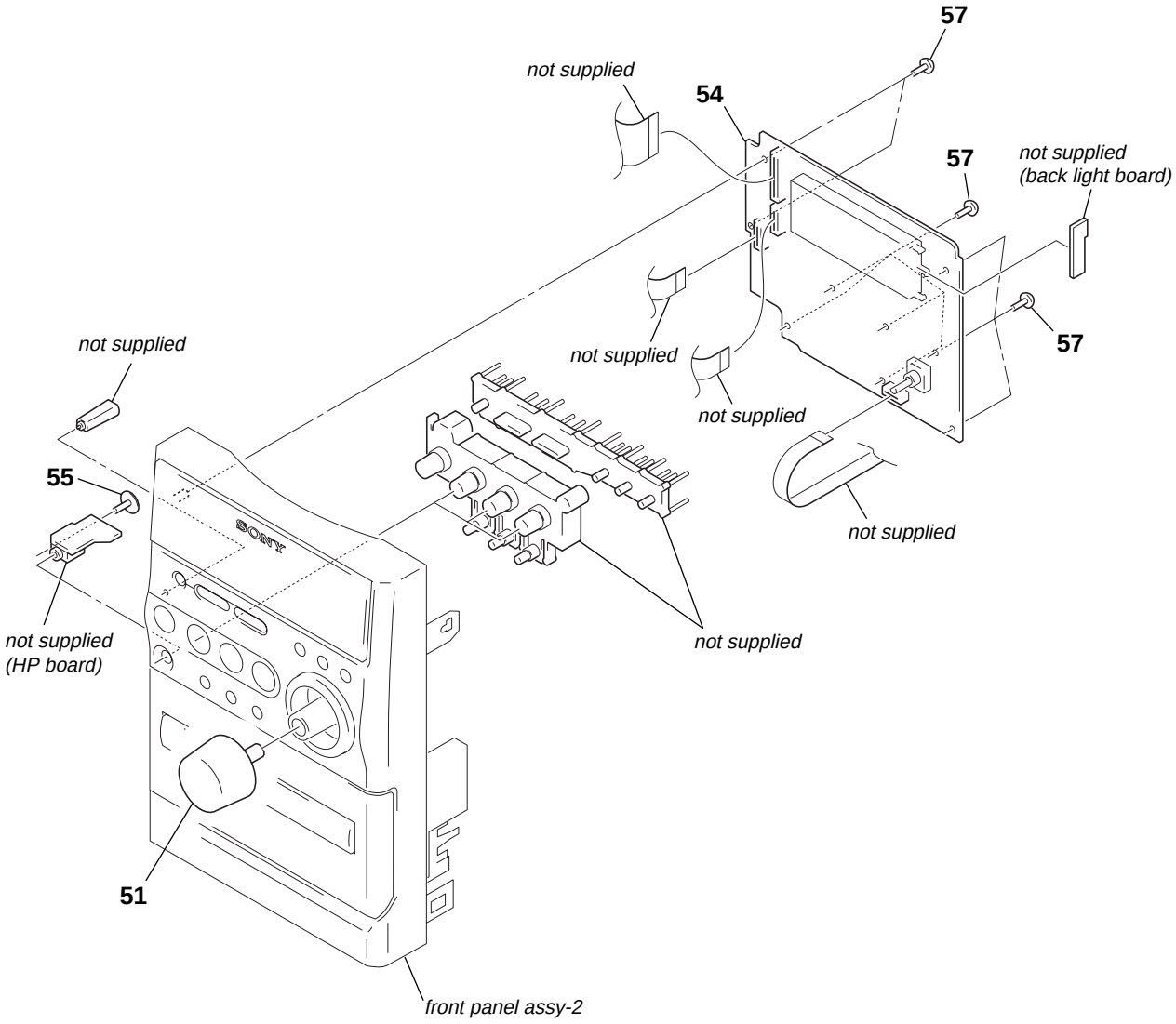
7-1. PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	A-1055-614-A	POWER BOARD, COMLETE (E, E51, SP)	
1	A-1056-003-A	POWER BOARD, COMLETE (AR, AUS)	
1	A-1056-266-A	POWER BOARD, COMLETE (MX, TW)	
1	A-1056-495-A	POWER BOARD, COMLETE (EA)	
1	A-1056-526-A	POWER BOARD, COMLETE (KR)	
1	A-4750-273-A	POWER BOARD, COMLETE (AEP, UK)	
1	A-4751-335-A	POWER BOARD, COMLETE (US, CND)	
2	A-4750-277-A	AMP BOARD, COMPLETE	
3	A-4750-275-A	MAIN BOARD, COMPLETE	
4	3-703-244-00	BUSHING (2104), CORD	
⚠5	1-775-790-12	CORD, POWER (AUS)	
⚠5	1-769-079-23	CORD, POWER (KR)	
⚠5	1-769-744-52	CORD, POWER (AEP, UK, E51, SP)	
⚠5	1-696-570-21	CORD, POWER (EA)	
⚠5	1-783-531-22	CORD, POWER (US, CND)	
⚠5	1-829-387-11	CORD, POWER (AR)	
⚠5	1-827-226-11	CORD, POWER (E, MX)	
⚠5	1-827-597-31	CORD, POWER (TW)	

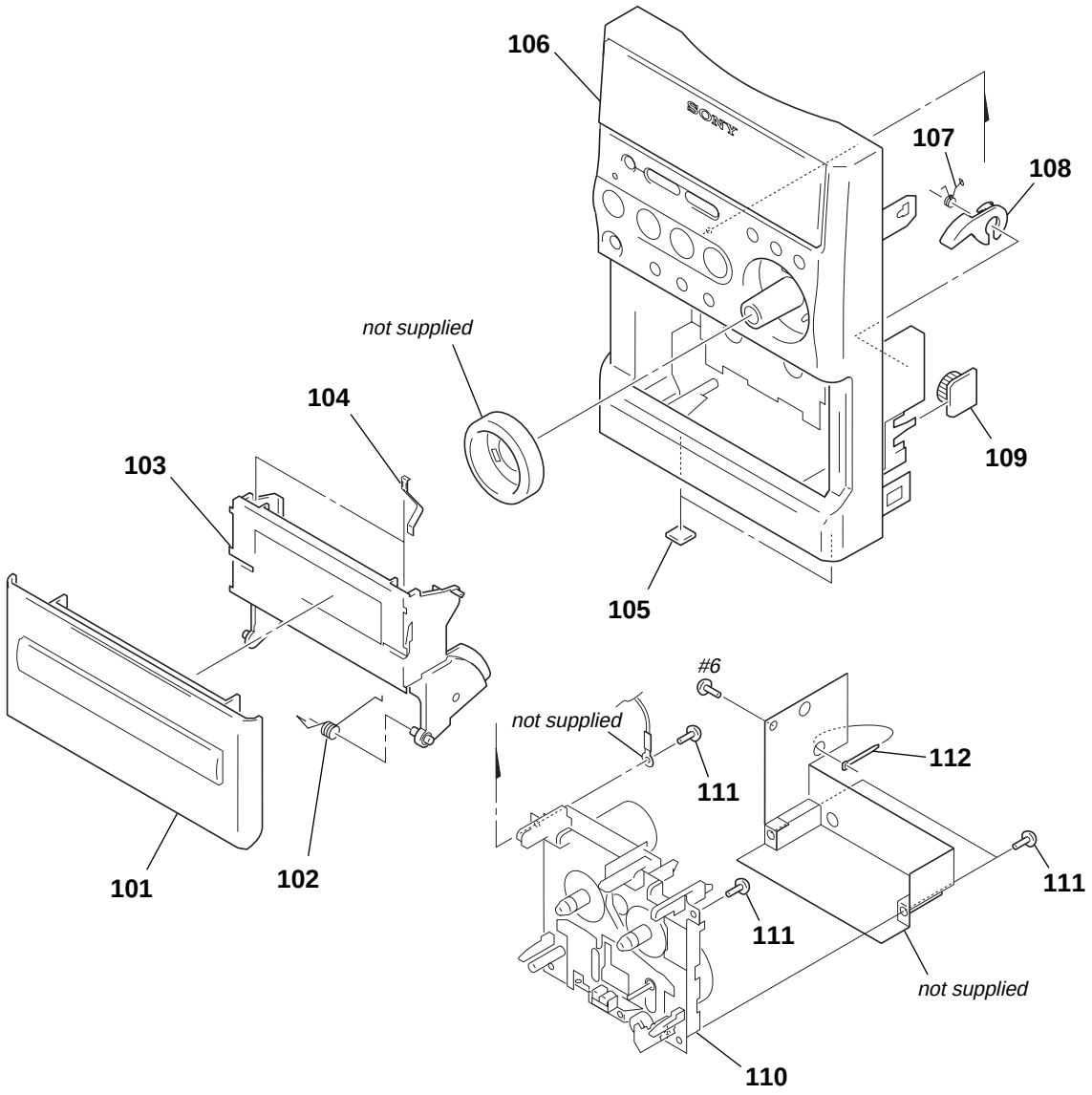
Ref. No.	Part No.	Description	Remark
6	1-693-625-11	TUNER (FM/AM) (US, CND)	
6	1-693-628-11	TUNER (FM/AM) (E, E51, EA, MX, SP, TW, AR, AUS)	
6	1-693-629-11	TUNER (FM/AM) (AEP, UK, KR)	
7	4-246-784-01	FOOT RUBBER	
8	4-253-221-01	CABINET, REAR	
9	3-701-748-00	CLAMP	
10	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
⚠T902	1-443-246-11	TRANSFORMER, POWER (E, E51, MX, SP, TW, AR, AUS)	
⚠T902	1-443-245-11	TRANSFORMER, POWER (AEP, UK)	
⚠T902	1-443-244-11	TRANSFORMER, POWER (US, CND)	
⚠T902	1-443-396-11	TRANSFORMER, POWER (EA)	
⚠T902	1-443-397-11	TRANSFORMER, POWER (KR)	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#8	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#5	7-685-661-14	SCREW +BVTP 4X12 TYPE2 N-S	

7-2. FRONT PANEL ASSY-1



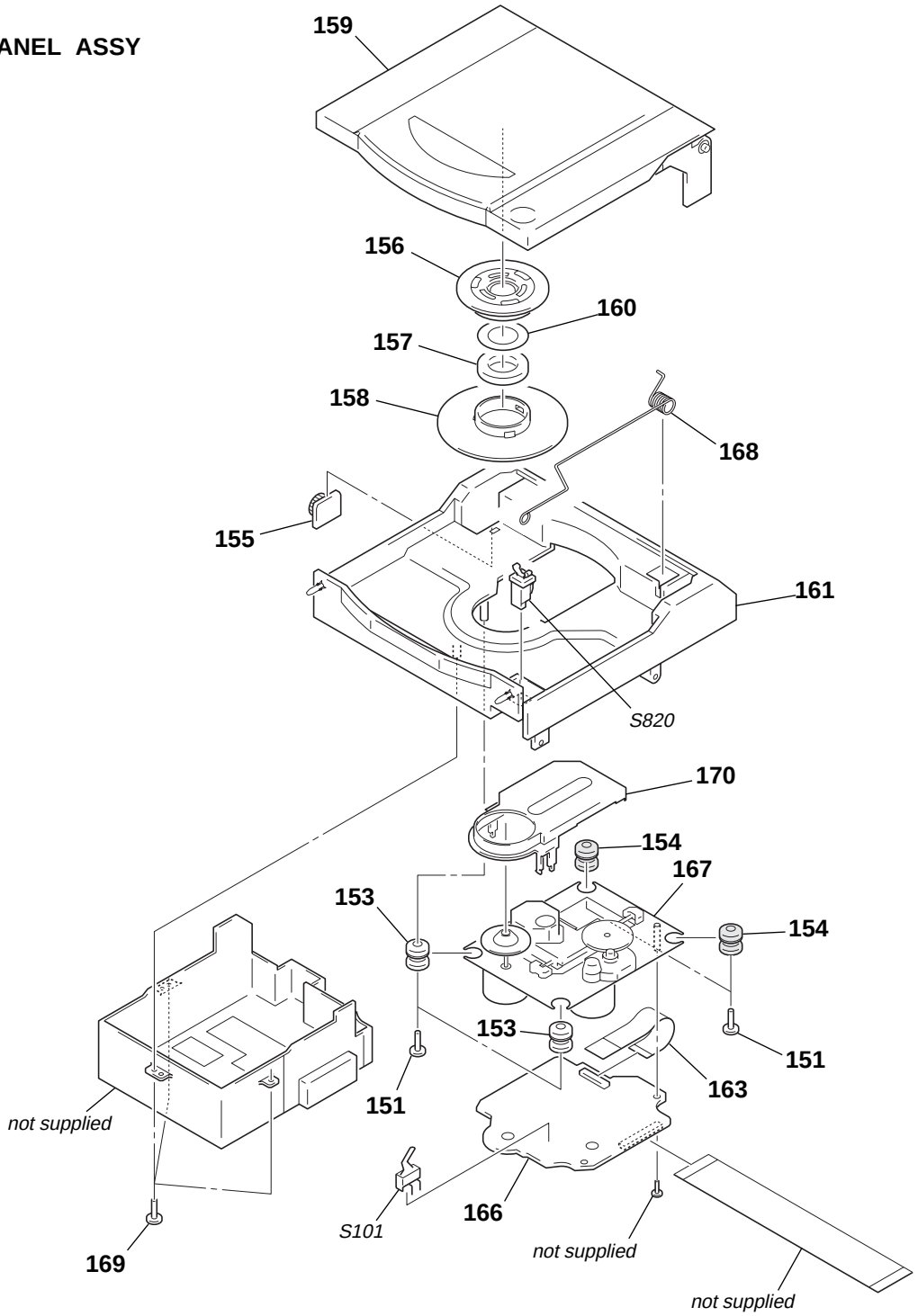
Ref. No.	Part No.	Description	Remark
51	4-253-222-01	KNOB, VOLUME	
54	A-1055-611-A	CONTROL BOARD, COMPLETE (SP)	
54	A-1056-204-A	CONTROL BOARD, COMPLETE (E, E51, AR)	
54	A-1056-001-A	CONTROL BOARD, COMPLETE (TW, AUS)	
54	A-1056-250-A	CONTROL BOARD, COMPLETE (MX)	
54	A-1056-496-A	CONTROL BOARD, COMPLETE (EA)	
54	A-1056-524-A	CONTROL BOARD, COMPLETE (KR)	
54	A-4750-270-A	CONTROL BOARD, COMPLETE (AEP, UK)	
54	A-4751-333-A	CONTROL BOARD, COMPLETE (US, CND)	
55	3-921-725-01	SCREW (2.6X10), +PWH	
57	4-951-620-11	SCREW (2.6X10), +BVTP	

7-3. FRONT PANEL ASSY-2



Ref. No.	Part No.	Description	Remark
101	X-4956-276-1	LID, CASS ASSY (X)	
102	4-245-034-01	SPRING (CASSETTE)	
103	4-245-018-01	HOLDER (CASSETTE)	
104	4-238-631-01	TAPE SPRING	
105	4-246-784-01	FOOT RUBBER	
106	X-2022-201-1	PANEL ASSY, FRONT (E, E51, EA, MX, SP, TW, AR, AUS)	
106	X-4956-274-1	PANEL ASSY, FRONT (AEP, UK, KR)	
106	X-4956-277-1	PANEL ASSY, FRONT (US, CND)	
107	4-231-841-01	SPRING (HEART CAM-B)	
108	4-231-825-01	CAM (B), HEART	
109	4-224-104-41	DAMPER	
110	1-796-352-41	DECK, MECHANICAL (CMAL5Z220A)	
111	4-951-620-11	SCREW (2.6X10), +BVTP	
112	3-701-748-00	CLAMP	
#6	7-685-862-09	SCREW +BVTT 2.6X6 (S)	

7-4. TOP PANEL ASSY



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
151	3-921-725-01	SCREW (2.6X10), +PWH	
153	3-931-379-31	RUBBER, VIBRATION PROOF (GREEN)	
154	3-931-379-21	RUBBER, VIBRATION PROOF (RED)	
155	4-242-171-01	DAMPER 150 N	
156	4-246-193-01	HOLDER, CHUCK A	
157	4-249-238-01	MAGNET (18-30-5)	
158	4-246-192-01	BASE, CHUCK N	
159	X-4956-278-1	CD ASSY, LID	
160	4-246-191-11	PLATE, MAGNET	
161	4-245-015-21	CABINET (TOP) (US, CND)	
161	4-245-015-31	CABINET (TOP) (EXCEPT US, CND)	
163	1-827-991-11	WIRE (FLAT TYPE) (16 CORE)	
166	A-4751-032-A	BD BOARD, COMPLETE	
⚠167	8-820-221-01	OPTICAL PICK-UP KSM-213EDP/C2NP	
168	4-248-711-11	SPRING (CD)	
169	4-951-620-01	SCREW (2.6X8), +BVTP	
170	4-247-493-01	COVER, CD	
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	
S820	1-692-960-11	SWITCH, PUSH (1KEY) (CD LID OPEN/CLOSE DETECT)	

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  AR : Argentina model
  AUS : Australian model
  CND : Canadian model
  E51 : Chilean and Peruvian model
  EA : Saudi Arabia model
  KR : Korea model
  MX : Mexican model
  SP : Singapore model
  TW : Taiwan model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
	A-4750-277-A	AMP BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C501	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C503	1-126-947-11	ELECT	47uF	20%	35V
C505	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C506	1-126-947-11	ELECT	47uF	20%	35V
C507	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C509	1-126-949-11	ELECT	220uF	20%	35V
C510	1-126-949-11	ELECT	220uF	20%	35V
C511	1-136-177-00	FILM	1uF	5%	50V
C512	1-136-177-00	FILM	1uF	5%	50V
C513	1-136-177-00	FILM	1uF	5%	50V
C514	1-136-177-00	FILM	1uF	5%	50V
C516	1-126-933-11	ELECT	100uF	20%	16V
		< CONNECTOR >			
CN501	1-564-507-11	PLUG, CONNECTOR 4P			
		< EARTH TERMINAL >			
EP903	1-537-770-21	TERMINAL BOARD, GROUND			
		< IC >			
IC501	8-759-333-24	IC LM1876TF			
		< RESISTOR >			
R501	1-216-821-11	METAL CHIP	1K	5%	1/10W
R502	1-216-841-11	METAL CHIP	47K	5%	1/10W
R503	1-216-819-11	METAL CHIP	680	5%	1/10W
R504	1-249-437-11	CARBON	47K	5%	1/4W
R505	1-216-841-11	METAL CHIP	47K	5%	1/10W
R506	1-216-821-11	METAL CHIP	1K	5%	1/10W
R507	1-216-833-11	METAL CHIP	10K	5%	1/10W
R508	1-216-819-11	METAL CHIP	680	5%	1/10W
R509	1-249-437-11	CARBON	47K	5%	1/4W
R511	1-216-839-11	METAL CHIP	33K	5%	1/10W
R512	1-216-839-11	METAL CHIP	33K	5%	1/10W
R514	1-216-833-11	METAL CHIP	10K	5%	1/10W
⚠R515	1-216-373-81	METAL OXIDE	2.2	5%	2W F
⚠R516	1-216-373-81	METAL OXIDE	2.2	5%	2W F
R517	1-216-842-11	METAL CHIP	56K	5%	1/10W
R518	1-216-841-11	METAL CHIP	47K	5%	1/10W
⚠R519	1-215-889-00	METAL OXIDE	330	5%	2W F
⚠R520	1-215-889-00	METAL OXIDE	330	5%	2W F
		**********			
		BACK LIGHT BOARD			
		**********			
		< LED >			
D701	8-719-075-50	LED SELS6B14C-TP5 (LCD BACK LIGHT)			
D702	8-719-075-50	LED SELS6B14C-TP5 (LCD BACK LIGHT)			
D703	8-719-075-50	LED SELS6B14C-TP5 (LCD BACK LIGHT)			
		< RESISTOR >			
R707	1-216-810-11	METAL CHIP	120	5%	1/10W
R708	1-216-810-11	METAL CHIP	120	5%	1/10W
R709	1-216-810-11	METAL CHIP	120	5%	1/10W
R710	1-216-810-11	METAL CHIP	120	5%	1/10W
R711	1-216-810-11	METAL CHIP	120	5%	1/10W
R712	1-216-810-11	METAL CHIP	120	5%	1/10W
		**********			
	A-4751-032-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C10	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C11	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C14	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C15	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C16	1-115-156-11	CERAMIC CHIP	1uF		10V
C17	1-126-923-11	ELECT	220uF	20%	16V
C18	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C111	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C112	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C113	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C114	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C115	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C116	1-126-923-11	ELECT	220uF	20%	16V
C117	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C122	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C123	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C124	1-162-959-11	CERAMIC CHIP	330PF	5%	50V

Ref. No.	Part No.	Description			Remark
C125	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C131	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C132	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C133	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C141	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C142	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C143	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C151	1-126-923-11	ELECT	220uF	20%	16V
C160	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C161	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C162	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C163	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C164	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C170	1-126-934-11	ELECT	220uF	20%	16V
C171	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C172	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C174	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C181	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C182	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C183	1-126-923-11	ELECT	220uF	20%	16V
C184	1-126-923-11	ELECT	220uF	20%	16V
C185	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C186	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C194	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C195	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C201	1-126-923-11	ELECT	220uF	20%	16V
C202	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C203	1-126-923-11	ELECT	220uF	20%	16V
C210	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C211	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C212	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C213	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C251	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C252	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C257	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C258	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C259	1-164-360-11	CERAMIC CHIP	0.1uF		16V
		< CONNECTOR >			
CN101	1-793-907-11	CONNECTOR, FFC/FPC 16P			
CN201	1-568-860-11	SOCKET, CONNECTOR 17P			
		< IC >			
IC101	8-752-425-11	IC CXD3058AR			
IC251	6-705-808-01	IC BA5947FM			
		< SHORT >			
JR101	1-216-296-11	SHORT CHIP	0		
JR102	1-216-296-11	SHORT CHIP	0		
JR103	1-216-296-11	SHORT CHIP	0		
JR104	1-216-296-11	SHORT CHIP	0		
JR105	1-216-296-11	SHORT CHIP	0		
JR106	1-216-296-11	SHORT CHIP	0		
JR107	1-216-296-11	SHORT CHIP	0		
JR108	1-216-864-11	SHORT CHIP	0		
JR109	1-216-296-11	SHORT CHIP	0		
JR110	1-216-296-11	SHORT CHIP	0		
JR111	1-216-296-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q10	6-550-363-01	TRANSISTOR	2SB1690KT146		
		< RESISTOR/FERRITE BEAD >			
R10	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R11	1-216-864-11	SHORT CHIP	0		
R12	1-216-845-11	METAL CHIP	100K	5%	1/10W
R13	1-218-446-11	METAL CHIP	1	5%	1/10W
R111	1-216-821-11	METAL CHIP	1K	5%	1/10W
R112	1-216-835-11	METAL CHIP	15K	5%	1/10W
R113	1-216-821-11	METAL CHIP	1K	5%	1/10W
R114	1-216-835-11	METAL CHIP	15K	5%	1/10W
R121	1-216-835-11	METAL CHIP	15K	5%	1/10W
R131	1-216-857-11	METAL CHIP	1M	5%	1/10W
R132	1-216-833-11	METAL CHIP	10K	5%	1/10W
R133	1-216-848-11	METAL CHIP	180K	5%	1/10W
R141	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R142	1-216-821-11	METAL CHIP	1K	5%	1/10W
R143	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R151	1-216-864-11	SHORT CHIP	0		
R161	1-216-809-11	METAL CHIP	100	5%	1/10W
R162	1-216-841-11	METAL CHIP	47K	5%	1/10W
R171	1-216-817-11	METAL CHIP	470	5%	1/10W
R172	1-216-857-11	METAL CHIP	1M	5%	1/10W
R173	1-216-295-00	SHORT CHIP	0		
R181	1-216-809-11	METAL CHIP	100	5%	1/10W
R182	1-216-809-11	METAL CHIP	100	5%	1/10W
R201	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R202	1-216-864-11	SHORT CHIP	0		
R204	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R251	1-216-833-11	METAL CHIP	10K	5%	1/10W
R252	1-216-837-11	METAL CHIP	22K	5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-809-11	METAL CHIP	100	5%	1/10W
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R412	1-216-809-11	METAL CHIP	100	5%	1/10W
		< VIBRATOR >			
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz)			

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	A-1055-611-A	CONTROL BOARD, COMPLETE (SP)
	A-1056-001-A	CONTROL BOARD, COMPLETE (TW, AUS)
	A-1056-204-A	CONTROL BOARD, COMPLETE (E, E51, AR)
	A-1056-250-A	CONTROL BOARD, COMPLETE (MX)
	A-1056-496-A	CONTROL BOARD, COMPLETE (EA)
	A-1056-524-A	CONTROL BOARD, COMPLETE (KR)
	A-4750-270-A	CONTROL BOARD, COMPLETE (AEP, UK)
	A-4751-333-A	CONTROL BOARD, COMPLETE (US, CND)
		**********
	4-245-030-01	HOLDER (LCD)
	4-245-801-01	SHEET (LCD)

CONTROL

Ref. No.	Part No.	Description			Remark
	4-248-365-01	SHEET (PLATE)			
	4-248-366-01	SHEET (LIGHT)			
		< CAPACITOR >			
C801	1-164-160-11	CERAMIC CHIP	20PF	5%	50V
C802	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C803	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C804	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C805	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C809	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C810	1-124-222-91	ELECT	22uF	20%	6.3V
C811	1-124-234-00	ELECT	22uF	20%	16V
C812	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C813	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C814	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C815	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C816	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C823	1-104-655-91	ELECT	470uF	20%	6.3V
C824	1-124-589-11	ELECT	47uF	20%	16V
C825	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C826	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C827	1-126-157-11	ELECT	10uF	20%	16V
C828	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C829	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C830	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C831	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C832	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C834	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CNB302	1-784-780-11	CONNECTOR, FFC 19P			
CNB303	1-691-040-31	CONNECTOR, FFC 8P			
CNB801	1-568-826-11	CONNECTOR, FFC 7P			
CNB802	1-568-830-11	CONNECTOR, FFC 11P			
		< DIODE >			
D801	8-719-991-33	DIODE 1SS133T-77			
D806	8-719-060-44	DIODE SLR-342VRT32			
D807	8-719-991-33	DIODE 1SS133T-77			
D808	8-719-991-33	DIODE 1SS133T-77			
D809	8-719-991-33	DIODE 1SS133T-77			
D810	8-719-991-33	DIODE 1SS133T-77			
D811	8-719-991-33	DIODE 1SS133T-77			
D812	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC801	6-804-383-01	IC LC877456C-53K5-E			
IC802	6-600-309-01	IC RPM7240-H9			
IC803	8-759-532-64	IC M62703SL-TP			
		< SHORT >			
JR101	1-216-864-11	SHORT CHIP	0		
JR102	1-216-864-11	SHORT CHIP	0		
JR103	1-216-864-11	SHORT CHIP	0		
JR104	1-216-864-11	SHORT CHIP	0		
JR105	1-216-864-11	SHORT CHIP	0		
JR106	1-216-864-11	SHORT CHIP	0		
JR107	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
JR109	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L801	1-410-509-11	INDUCTOR	10uH		
		< LIQUID CRYSTAL DISPLAY >			
LCD801	1-805-530-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< TRANSISTOR >			
Q801	8-729-034-51	TRANSISTOR	KTC3875		
Q802	8-729-037-13	TRANSISTOR	KTA1271Y		
Q803	8-729-054-16	TRANSISTOR	KRC402-RTK		
Q804	8-729-037-13	TRANSISTOR	KTA1271Y		
Q805	8-729-054-16	TRANSISTOR	KRC402-RTK		
Q806	8-729-054-16	TRANSISTOR	KRC402-RTK		
Q808	8-729-034-51	TRANSISTOR	KTC3875		
		< RESISTOR >			
R701	1-216-839-11	METAL CHIP	33K	5%	1/10W (US, CND)
R702	1-216-852-11	METAL CHIP	390K	5%	1/10W
R703	1-216-833-11	METAL CHIP	10K	5%	1/10W
R704	1-216-845-11	METAL CHIP	100K	5%	1/10W
R705	1-216-838-11	METAL CHIP	27K	5%	1/10W (EXCEPT US, CND)
R706	1-216-827-11	METAL CHIP	3.3K	5%	1/10W (EXCEPT US, CND)
R801	1-216-809-11	METAL CHIP	100	5%	1/10W
R803	1-216-809-11	METAL CHIP	100	5%	1/10W
R804	1-216-809-11	METAL CHIP	100	5%	1/10W
R805	1-216-809-11	METAL CHIP	100	5%	1/10W
R806	1-216-821-11	METAL CHIP	1K	5%	1/10W
R809	1-216-849-11	METAL CHIP	220K	5%	1/10W
R810	1-216-809-11	METAL CHIP	100	5%	1/10W
R811	1-216-809-11	METAL CHIP	100	5%	1/10W
R812	1-216-809-11	METAL CHIP	100	5%	1/10W
R813	1-216-837-11	METAL CHIP	22K	5%	1/10W
R814	1-216-841-11	METAL CHIP	47K	5%	1/10W
R815	1-216-809-11	METAL CHIP	100	5%	1/10W
R816	1-216-837-11	METAL CHIP	22K	5%	1/10W
R818	1-216-809-11	METAL CHIP	100	5%	1/10W
R820	1-216-842-11	METAL CHIP	56K	5%	1/10W
R822	1-216-809-11	METAL CHIP	100	5%	1/10W
R823	1-216-809-11	METAL CHIP	100	5%	1/10W
R824	1-216-809-11	METAL CHIP	100	5%	1/10W
R825	1-216-809-11	METAL CHIP	100	5%	1/10W
R826	1-216-809-11	METAL CHIP	100	5%	1/10W
R827	1-216-809-11	METAL CHIP	100	5%	1/10W
R831	1-216-809-11	METAL CHIP	100	5%	1/10W
R832	1-216-833-11	METAL CHIP	10K	5%	1/10W
R833	1-216-841-11	METAL CHIP	47K	5%	1/10W
R834	1-216-841-11	METAL CHIP	47K	5%	1/10W
R835	1-216-841-11	METAL CHIP	47K	5%	1/10W
R836	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R837	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R838	1-216-809-11	METAL CHIP	100	5%	1/10W
R839	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R840	1-216-841-11	METAL CHIP	47K	5%	1/10W
R851	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R852	1-216-813-11	METAL CHIP	220	5%	1/10W
R853	1-216-815-11	METAL CHIP	330	5%	1/10W
R854	1-216-817-11	METAL CHIP	470	5%	1/10W
R855	1-216-819-11	METAL CHIP	680	5%	1/10W
R856	1-216-821-11	METAL CHIP	1K	5%	1/10W
R857	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R858	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R859	1-216-813-11	METAL CHIP	220	5%	1/10W
R860	1-216-815-11	METAL CHIP	330	5%	1/10W
R861	1-216-817-11	METAL CHIP	470	5%	1/10W
R862	1-216-819-11	METAL CHIP	680	5%	1/10W
R863	1-216-821-11	METAL CHIP	1K	5%	1/10W
R869	1-216-833-11	METAL CHIP	10K	5%	1/10W
R870	1-216-833-11	METAL CHIP	10K	5%	1/10W
R871	1-216-833-11	METAL CHIP	10K	5%	1/10W
R874	1-216-833-11	METAL CHIP	10K	5%	1/10W
R875	1-216-821-11	METAL CHIP	1K	5%	1/10W
					(E, E51, EA, MX, AR)
R875	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
					(US, CND)
R875	1-216-864-11	SHORT CHIP	0 (AEP, UK)		
R876	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
			(US, CND, E, E51, EA, MX, AR)		
R876	1-216-864-11	SHORT CHIP	0 (SP, TW, KR, AUS)		
R878	1-216-833-11	METAL CHIP	10K	5%	1/10W
R879	1-216-833-11	METAL CHIP	10K	5%	1/10W
R881	1-247-807-31	CARBON	100	5%	1/4W
R882	1-216-845-11	METAL CHIP	100K	5%	1/10W
R883	1-216-841-11	METAL CHIP	47K	5%	1/10W
R884	1-216-821-11	METAL CHIP	1K	5%	1/10W
R885	1-216-841-11	METAL CHIP	47K	5%	1/10W
R886	1-216-821-11	METAL CHIP	1K	5%	1/10W
R887	1-216-817-11	METAL CHIP	470	5%	1/10W
R890	1-216-813-11	METAL CHIP	220	5%	1/10W
R891	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R892	1-216-841-11	METAL CHIP	47K	5%	1/10W
R893	1-216-841-11	METAL CHIP	47K	5%	1/10W
R894	1-216-837-11	METAL CHIP	22K	5%	1/10W
R895	1-216-833-11	METAL CHIP	10K	5%	1/10W
R897	1-216-845-11	METAL CHIP	100K	5%	1/10W
R898	1-216-845-11	METAL CHIP	100K	5%	1/10W
		< ROTARY ENCODER >			
RV801	1-418-632-11	ENCODER, ROTARY (12 TYPE) (VOLUME)			
		< SWITCH >			
S801	1-786-050-21	SWITCH, KEY BOARD (I/⏻)			
S802	1-786-050-21	SWITCH, KEY BOARD (TAPE ►)			
S803	1-786-050-21	SWITCH, KEY BOARD (CD ►II)			
S804	1-786-050-21	SWITCH, KEY BOARD (TUNER, BAND)			
S805	1-786-050-21	SWITCH, KEY BOARD (CD SYNCHRO)			
S806	1-786-050-21	SWITCH, KEY BOARD (● REC PAUSE/START)			
S807	1-786-050-21	SWITCH, KEY BOARD (PLAY MODE)			
S808	1-786-050-21	SWITCH, KEY BOARD (■)			
S809	1-786-050-21	SWITCH, KEY BOARD (TUNE – I◄◄ ◄◄)			
S810	1-786-050-21	SWITCH, KEY BOARD (TUNE + ►► ►►I)			
S811	1-786-050-21	SWITCH, KEY BOARD (DISPLAY)			
S812	1-786-050-21	SWITCH, KEY BOARD (BASS/TREBLE)			
S813	1-786-050-21	SWITCH, KEY BOARD (DSGX)			
		< VIBRATOR >			
X801	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)			
X802	1-795-004-21	VIBRATOR, CERAMIC (10MHz)			

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		HP BOARD			
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		< CAPACITOR >			
C520	1-127-876-21	CERAMIC	0.01uF	10%	50V
C521	1-127-876-21	CERAMIC	0.01uF	10%	50V
		< JACK >			
J301	1-793-829-11	JACK, HEADPHONE (PHONES)			

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		MAIN BOARD, COMPLETE			
	A-4750-275-A	**********			
		< CAPACITOR >			
C101	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C102	1-162-977-11	CERAMIC CHIP	0.0018uF	10%	50V
C103	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C104	1-104-665-11	ELECT	100uF	20%	25V
C106	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C107	1-126-961-11	ELECT	2.2uF	20%	50V
C108	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C109	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C110	1-164-218-11	CERAMIC CHIP	180PF	5%	50V
C111	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C112	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C113	1-126-957-11	ELECT	0.22uF	20%	50V
C114	1-126-959-11	ELECT	0.47uF	20%	50V
C115	1-126-963-11	ELECT	4.7uF	20%	50V
C116	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C117	1-164-730-11	CERAMIC CHIP	0.0012uF	10%	50V
C118	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C119	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C121	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C126	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C127	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C132	1-126-963-11	ELECT	4.7uF	20%	50V
C133	1-130-491-00	MYLAR	0.047uF	5%	50V
C134	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C135	1-126-964-11	ELECT	10uF	20%	50V
C136	1-126-964-11	ELECT	10uF	20%	50V
C201	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C202	1-162-977-11	CERAMIC CHIP	0.0018uF	10%	50V
C203	1-162-927-11	CERAMIC CHIP	100PF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C204	1-104-665-11	ELECT	100uF	20%	25V
C206	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C207	1-126-961-11	ELECT	2.2uF	20%	50V
C208	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C209	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C210	1-164-218-11	CERAMIC CHIP	180PF	5%	50V
C211	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C212	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C213	1-126-957-11	ELECT	0.22uF	20%	50V
C214	1-126-959-11	ELECT	0.47uF	20%	50V
C215	1-126-963-11	ELECT	4.7uF	20%	50V
C216	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C217	1-164-730-11	CERAMIC CHIP	0.0012uF	10%	50V
C218	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C219	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C221	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C226	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C227	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C232	1-126-963-11	ELECT	4.7uF	20%	50V
C233	1-130-491-00	MYLAR	0.047uF	5%	50V
C234	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C235	1-126-964-11	ELECT	10uF	20%	50V
C236	1-126-964-11	ELECT	10uF	20%	50V
C301	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C302	1-104-655-91	ELECT	470uF	20%	6.3V
C305	1-104-655-91	ELECT	470uF	20%	6.3V
C308	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C309	1-126-767-11	ELECT	1000uF	20%	16V
C310	1-127-888-21	CERAMIC	0.1uF	10%	50V
C311	1-128-809-11	CERAMIC	100PF	5%	50V
C312	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C313	1-126-933-11	ELECT	100uF	20%	16V
C314	1-137-150-11	FILM	0.01uF	5%	100V
C315	1-128-809-11	CERAMIC	100PF	5%	50V
C316	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C317	1-128-809-11	CERAMIC	100PF	5%	50V
C318	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C319	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C320	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C321	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C322	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C323	1-126-943-11	ELECT	2200uF	20%	25V
C324	1-126-934-11	ELECT	220uF	20%	16V
C326	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C328	1-126-935-11	ELECT	470uF	20%	16V
C329	1-126-916-11	ELECT	1000uF	20%	6.3V
C330	1-104-665-11	ELECT	100uF	20%	25V
C331	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C332	1-126-927-11	ELECT	2200uF	20%	10V
C333	1-126-969-11	ELECT	220uF	20%	50V
C335	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C336	1-126-965-11	ELECT	22uF	20%	50V
C345	1-126-964-11	ELECT	10uF	20%	50V
C346	1-126-768-11	ELECT	2200uF	20%	16V
C351	1-104-665-11	ELECT	100uF	20%	25V
C352	1-126-953-11	ELECT	2200uF	20%	35V
C353	1-126-953-11	ELECT	2200uF	20%	35V
C354	1-126-961-11	ELECT	2.2uF	20%	50V
C355	1-130-485-00	MYLAR	0.015uF	5%	50V
C356	1-130-481-00	MYLAR	0.0068uF	5%	50V
C357	1-130-481-00	MYLAR	0.0068uF	5%	50V
C358	1-130-486-00	MYLAR	0.018uF	5%	50V
C360	1-126-964-11	ELECT	10uF	20%	50V
C361	1-126-947-11	ELECT	47uF	20%	35V
C362	1-126-964-11	ELECT	10uF	20%	50V
C370	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN302	1-784-780-11	CONNECTOR, FFC 19P			
CN303	1-691-040-31	CONNECTOR, FFC 8P			
CN305	1-784-778-11	CONNECTOR, FFC 17P			
CN309	1-564-506-11	PLUG, CONNECTOR 3P			
CNB307	1-564-509-11	PLUG, CONNECTOR 6P			
* CNB308	1-564-512-11	PLUG, CONNECTOR 9P			
		< DIODE >			
D301	8-719-991-33	DIODE 1SS133T-77			
D302	8-719-991-33	DIODE 1SS133T-77			
D303	8-719-109-72	DIODE RD3.9ESB2			
D304	8-719-109-72	DIODE RD3.9ESB2			
D305	8-719-983-20	DIODE MTZJ-T-77-4.3C			
D306	8-719-983-20	DIODE MTZJ-T-77-4.3C			
D307	8-719-991-33	DIODE 1SS133T-77			
D308	8-719-991-33	DIODE 1SS133T-77			
D310	8-719-983-20	DIODE MTZJ-T-77-4.3C			
D317	8-719-991-33	DIODE 1SS133T-77			
D318	8-719-991-33	DIODE 1SS133T-77			
D321	8-719-991-33	DIODE 1SS133T-77			
D322	8-719-991-33	DIODE 1SS133T-77			
		< FERRITE BEAD >			
FB301	1-412-473-21	INDUCTOR (SMALL TYPE)			
FB302	1-412-473-21	INDUCTOR (SMALL TYPE)			
FB317	1-500-445-21	FERRITE, EMI (SMD) (2012)			
		< IC >			
IC302	6-702-895-01	IC BD3881FV			
		< JACK >			
J302	1-536-708-81	TERMINAL BOARD, PUSH (4P) (SPEAKER IMPEDANCE USE 8-16Ω)			
J303	1-778-940-11	JACK 2P (MD)			
		< CAPACITOR/COIL >			
JW120	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
JW323	1-410-509-11	INDUCTOR	10uH		
		< COIL >			
L101	1-422-009-13	COIL, AIR-CORE			
L201	1-422-009-13	COIL, AIR-CORE			
		< TRANSISTOR >			
Q311	8-729-037-13	TRANSISTOR	KTA1271Y		
Q312	8-729-036-86	TRANSISTOR	KTC3203Y-AT		

Ref. No.	Part No.	Description			Remark
Q313	8-729-036-86	TRANSISTOR	KTC3203Y-AT		
Q314	8-729-037-13	TRANSISTOR	KTA1271Y		
Q315	8-729-054-16	TRANSISTOR	KRC402-RTK		
Q317	8-729-028-54	TRANSISTOR	KTC3205		
Q319	8-729-040-76	TRANSISTOR	KTA1273-Y-AT		
Q320	8-729-054-16	TRANSISTOR	KRC402-RTK		
Q326	8-729-034-50	TRANSISTOR	KTA1504		
Q327	8-729-034-50	TRANSISTOR	KTA1504		
Q328	8-729-045-62	FET	2SK2158-T2B		
Q329	8-729-045-62	FET	2SK2158-T2B		
Q330	8-729-045-62	FET	2SK2158-T2B		
Q331	8-729-054-03	TRANSISTOR	KRA303-RTK		
Q332	8-729-054-03	TRANSISTOR	KRA303-RTK		
Q333	8-729-054-16	TRANSISTOR	KRC402-RTK		
Q338	8-729-054-16	TRANSISTOR	KRC402-RTK		
Q339	8-729-036-86	TRANSISTOR	KTC3203Y-AT		
Q342	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q343	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q344	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q345	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q346	8-729-801-93	TRANSISTOR	2SD1387-3		
Q347	8-729-037-03	TRANSISTOR	KTA1266GR-AT		
Q348	8-729-036-58	TRANSISTOR	KRC102M-AT		
		< RESISTOR >			
R100	1-216-812-11	METAL CHIP	180	5%	1/10W
R101	1-216-834-11	METAL CHIP	12K	5%	1/10W
R102	1-216-840-11	METAL CHIP	39K	5%	1/10W
R103	1-216-817-11	METAL CHIP	470	5%	1/10W
R104	1-216-805-11	METAL CHIP	47	5%	1/10W
R105	1-216-852-11	METAL CHIP	390K	5%	1/10W
R106	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R107	1-216-847-11	METAL CHIP	150K	5%	1/10W
R108	1-216-835-11	METAL CHIP	15K	5%	1/10W
R109	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R111	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R112	1-216-839-11	METAL CHIP	33K	5%	1/10W
R113	1-216-817-11	METAL CHIP	470	5%	1/10W
R114	1-216-818-11	METAL CHIP	560	5%	1/10W
R115	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R116	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R117	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R118	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R119	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R120	1-216-833-11	METAL CHIP	10K	5%	1/10W
R121	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R122	1-216-843-11	METAL CHIP	68K	5%	1/10W
R123	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R124	1-216-835-11	METAL CHIP	15K	5%	1/10W
R125	1-216-837-11	METAL CHIP	22K	5%	1/10W
R126	1-216-837-11	METAL CHIP	22K	5%	1/10W
R128	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R131	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R132	1-216-821-11	METAL CHIP	1K	5%	1/10W
R136	1-216-833-11	METAL CHIP	10K	5%	1/10W
R137	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R143	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R200	1-216-812-11	METAL CHIP	180	5%	1/10W

Ref. No.	Part No.	Description			Remark
R201	1-216-834-11	METAL CHIP	12K	5%	1/10W
R202	1-216-840-11	METAL CHIP	39K	5%	1/10W
R203	1-216-817-11	METAL CHIP	470	5%	1/10W
R204	1-216-805-11	METAL CHIP	47	5%	1/10W
R205	1-216-852-11	METAL CHIP	390K	5%	1/10W
R206	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R207	1-216-847-11	METAL CHIP	150K	5%	1/10W
R208	1-216-835-11	METAL CHIP	15K	5%	1/10W
R209	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R211	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R212	1-216-839-11	METAL CHIP	33K	5%	1/10W
R213	1-216-817-11	METAL CHIP	470	5%	1/10W
R214	1-216-818-11	METAL CHIP	560	5%	1/10W
R215	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R216	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R217	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R218	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R219	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R220	1-216-833-11	METAL CHIP	10K	5%	1/10W
R221	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R222	1-216-843-11	METAL CHIP	68K	5%	1/10W
R223	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R224	1-216-835-11	METAL CHIP	15K	5%	1/10W
R225	1-216-837-11	METAL CHIP	22K	5%	1/10W
R226	1-216-837-11	METAL CHIP	22K	5%	1/10W
R228	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R231	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R232	1-216-821-11	METAL CHIP	1K	5%	1/10W
R236	1-216-833-11	METAL CHIP	10K	5%	1/10W
R237	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R243	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R301	1-216-841-11	METAL CHIP	47K	5%	1/10W
R302	1-216-835-11	METAL CHIP	15K	5%	1/10W
R303	1-216-833-11	METAL CHIP	10K	5%	1/10W
R304	1-216-821-11	METAL CHIP	1K	5%	1/10W
R305	1-216-809-11	METAL CHIP	100	5%	1/10W
R315	1-216-821-11	METAL CHIP	1K	5%	1/10W
R317	1-216-841-11	METAL CHIP	47K	5%	1/10W
R318	1-216-817-11	METAL CHIP	470	5%	1/10W
R319	1-216-857-11	METAL CHIP	1M	5%	1/10W
R320	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R321	1-216-845-11	METAL CHIP	100K	5%	1/10W
R322	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R323	1-216-821-11	METAL CHIP	1K	5%	1/10W
R324	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R325	1-216-845-11	METAL CHIP	100K	5%	1/10W
R326	1-216-845-11	METAL CHIP	100K	5%	1/10W
R327	1-216-833-11	METAL CHIP	10K	5%	1/10W
R332	1-216-821-11	METAL CHIP	1K	5%	1/10W
R336	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R348	1-216-821-11	METAL CHIP	1K	5%	1/10W
R349	1-216-842-11	METAL CHIP	56K	5%	1/10W
R350	1-216-833-11	METAL CHIP	10K	5%	1/10W
R351	1-216-833-11	METAL CHIP	10K	5%	1/10W
R352	1-249-413-11	CARBON	470	5%	1/4W
⚠R353	1-212-958-00	FUSIBLE	10	5%	1/2W F
R358	1-216-842-11	METAL CHIP	56K	5%	1/10W

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MAIN POWER REG

Ref. No.	Part No.	Description			Remark
R359	1-260-330-11	CARBON	1.5K	5%	1/2W
⚠R360	1-219-787-17	FUSIBLE	5.6	5%	1/4W F
⚠R361	1-219-787-17	FUSIBLE	5.6	5%	1/4W F
R362	1-216-836-11	METAL CHIP	18K	5%	1/10W
R363	1-216-836-11	METAL CHIP	18K	5%	1/10W
R364	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R365	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R366	1-216-837-11	METAL CHIP	22K	5%	1/10W
R367	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R368	1-216-833-11	METAL CHIP	10K	5%	1/10W
R370	1-216-833-11	METAL CHIP	10K	5%	1/10W
R371	1-216-833-11	METAL CHIP	10K	5%	1/10W
R372	1-216-844-11	METAL CHIP	82K	5%	1/10W
R373	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< TRANSFORMER >			
T301	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
**********					
	A-1055-614-A	POWER BOARD, COMPLETE (E, E51, SP)			
	A-1056-003-A	POWER BOARD, COMPLETE (AR, AUS)			
	A-1056-266-A	POWER BOARD, COMPLETE (MX, TW)			
	A-1056-495-A	POWER BOARD, COMPLETE (EA)			
	A-1056-526-A	POWER BOARD, COMPLETE (KR)			
	A-4750-273-A	POWER BOARD, COMPLETE (AEP, UK)			
	A-4751-335-A	POWER BOARD, COMPLETE (US, CND)			
		**********			
		< CAPACITOR >			
C901	1-136-165-00	FILM	0.1uF	5%	50V
C902	1-136-165-00	FILM	0.1uF	5%	50V
C903	1-136-165-00	FILM	0.1uF	5%	50V
C905	1-161-055-00	CERAMIC	0.022uF	10%	50V
C906	1-161-055-00	CERAMIC	0.022uF	10%	50V
C907	1-161-055-00	CERAMIC	0.022uF	10%	50V
C908	1-161-055-00	CERAMIC	0.022uF	10%	50V
C909	1-161-055-00	CERAMIC	0.022uF	10%	50V
C910	1-161-055-00	CERAMIC	0.022uF	10%	50V
C911	1-161-055-00	CERAMIC	0.022uF	10%	50V
C912	1-161-055-00	CERAMIC	0.022uF	10%	50V
⚠C913	1-113-925-11	CERAMIC	0.01uF	20%	250V
C914	1-126-947-11	ELECT	47uF	20%	35V
C915	1-136-497-81	FILM	0.1uF	5%	50V (EA, MX, TW)
C915	1-136-165-00	FILM	0.1uF	5%	50V (EXCEPT EA, MX, TW)
		< CONNECTOR >			
* CN901	1-793-660-11	PIN, CONNECTOR (PC BOARD) 3P			
* CN902	1-564-511-11	PLUG, CONNECTOR 8P			(EXCEPT EA, MX, TW, KR)
* CN902	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			(EA, MX, TW, KR)
		< DIODE >			
D906	8-719-991-33	DIODE 1SS133T-77			
D907	8-719-991-33	DIODE 1SS133T-77			
D908	8-719-991-33	DIODE 1SS133T-77			
D909	8-719-991-33	DIODE 1SS133T-77			
D910	8-719-991-33	DIODE 1SS133T-77			

Ref. No.	Part No.	Description			Remark
D911	8-719-063-79	DIODE 1N4002B			
D912	8-719-063-79	DIODE 1N4002B			
D913	8-719-063-79	DIODE 1N4002B			
D914	8-719-063-79	DIODE 1N4002B			
D916	8-719-046-47	DIODE 1N5401TM			
D917	8-719-046-47	DIODE 1N5401TM			
D918	8-719-046-47	DIODE 1N5401TM			
D919	8-719-046-47	DIODE 1N5401TM			
D920	8-719-991-33	DIODE 1SS133T-77			
D921	8-719-991-33	DIODE 1SS133T-77			
D922	8-719-050-84	DIODE RB441Q-40T-77			
D923	8-719-991-33	DIODE 1SS133T-77			
D924	8-719-991-33	DIODE 1SS133T-77			
		< LINE FILTER >			
⚠LF901	1-402-663-11	TRANSFORMER, LINE FILTER (LFT)			
		< RESISTOR >			
R901	1-249-437-11	CARBON	47K	5%	1/4W
R902	1-249-437-11	CARBON	47K	5%	1/4W
⚠R903	1-219-237-51	CARBON	3.3M	5%	1/2W F (US, CND)
R904	1-249-421-11	CARBON	2.2K	5%	1/4W
R905	1-249-421-11	CARBON	2.2K	5%	1/4W
R906	1-249-417-11	CARBON	1K	5%	1/4W (US, CND, AEP, UK, KR)
R906	1-249-418-11	CARBON	1.2K	5%	1/4W (EXCEPT US, CND, AEP, UK, KR)
R910	1-219-120-11	FUSIBLE	0.15	5%	1/4W
		< RELAY >			
⚠RY901	1-755-276-11	RELAY, POWER			
		< SWITCH >			
⚠S901	1-571-309-11	SWITCH (VOLTAGE DETECT) (E, E51, EA, SP)			
		< TRANSFORMER >			
⚠T901	1-439-772-11	TRANSFORMER, POWER (EXCEPT US, CND, AEP, UK, KR)			
⚠T901	1-439-779-11	TRANSFORMER, POWER (AEP, UK, KR)			
⚠T901	1-439-781-11	TRANSFORMER, POWER (US, CND)			
**********					
		REG BOARD			
		*********			
		< CAPACITOR >			
C306	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C307	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< IC >			
IC305	8-759-231-57	IC TA7810S			
IC306	8-759-450-49	IC BA07T			
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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
⚠5	1-696-570-21	CORD, POWER (EA)	
⚠5	1-775-790-12	CORD, POWER (AUS)	
⚠5	1-769-079-23	CORD, POWER (KR)	
⚠5	1-769-744-52	CORD, POWER (AEP, UK, E51, SP)	
⚠5	1-783-531-22	CORD, POWER (US, CND)	
⚠5	1-829-387-11	CORD, POWER (AR)	
⚠5	1-827-226-11	CORD, POWER (E, MX)	
⚠5	1-827-597-31	CORD, POWER (TW)	
6	1-693-625-11	TUNER (FM/AM) (US, CND)	
6	1-693-628-11	TUNER (FM/AM)	(E, E51, EA, MX, SP, TW, AR, AUS)
6	1-693-629-11	TUNER (FM/AM) (AEP, UK, KR)	
10	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
110	1-796-352-41	DECK, MECHANICAL (CMAL5Z220A)	
163	1-827-991-11	WIRE (FLAT TYPE) (16 CORE)	
⚠167	8-820-221-01	OPTICAL PICK-UP KSM-213EDP/C2NP	
⚠T902	1-443-245-11	TRANSFORMER, POWER (AEP, UK)	
⚠T902	1-443-244-11	TRANSFORMER, POWER (US, CND)	
⚠T902	1-443-396-11	TRANSFORMER, POWER (EA)	
⚠T902	1-443-397-11	TRANSFORMER, POWER (KR)	
⚠T902	1-443-246-11	TRANSFORMER, POWER	(E, E51, SP, TW, AR, AUS)
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	
S820	1-692-960-11	SWITCH, PUSH (1KEY)	(CD LID OPEN/CLOSE DETECT)
**********			
		ACCESSORIES	
		**********	
⚠	1-569-008-32	ADAPTOR, CONVERSION (E51, SP)	
⚠	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (UK)	

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REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2004.03	New
1.1	2005.07	Addition of Part No. for Ref. No. 170 on EXPLODED VIEWS (SPM-05124)